# THE BUILDER

## A Journal for the Architect & Constructor

OCTOBER 19, 1928 — No. 4472


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**86TH YEAR**

General View of Exterior.

Interior,

**The New Royal Horticultural Hall, Westminster.**

Messrs. Easton & Robertson, FF.R.I.B.A., Architects.

# THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

*WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."*

VOL. CXXXV. No. 4472. OCTOBER 19, 1928

## TIMBER AND THE FUTURE

THE recently issued Report of the Imperial Economic Committee on the subject of marketing forest products offers an opportunity for some further comments on these important and often mishandled materials. The Report is concerned with the introduction of Empire timbers to the home market; our purpose in this review is to cover a wider field, dealing with the supplies and preservation of timber generally. It should be quite unnecessary to draw attention at this date to the rate of consumption of the world's soft woods, but so great is the indifference to the approaching depletion that we think no apology is requisite for reverting to this subject. There is always a natural tendency to treat lightly anything readily obtainable, and to reply to scaremongers that things have gone on very well so far and that if a shortage ever does come upon us the researches of science will be able to provide a substitute, but it is to be hoped that so improvident an attitude will be shared by few. Before the war, the consumption rate of timber caused grave concern to those in a position to compute the world's resources. During the war, no economy in the use of material was encouraged at all, while schemes for afforestation were necessar ly, to say the least, hampered, and this indifference to waste was handed on to post-war years. We remember but a few years since seeing the occupants of homes for disabled soldiers in the Home Counties placed in possession of timbered ground which they were given to clear for their own garden produce, actually burning sound wood which could have served for fuel over many winters if, indeed, it could not have been used for rough constructions needed in such small holding developments.

It is stated that the annual value of all wood (including wood pulp) imported into this country is sixty million pounds, and is likely to be seventy million pounds very shortly. Of course, much of this is not constructional timber; on the other hand, the constructional section represents the most valuable wood and the permanent uses of the material. Some 95 per cent. of all this timber is imported, a somewhat sinister reflection upon our production in this country. The character of the soft wood imports is not what it was, and as long as the rate of consumption exceeds that of production, it is not likely appreciably to improve, because this lack of balance necessitates the felling of immature trees containing an undue proportion of sapwood. We say "undue" because it is a fiction to assume that soft woods used in construction have ever been wholly free from sapwood, but this is a very different thing from having to use such timber in which heartwood is the exception rather than the rule. We press the distinction between heart and sap wood because there is no doubt whatever as to the superiority of the former not merely in strength, but, what is more important, in resisting decay, and because some well-known soft wood timbers are not now even graded for sapwood. These, however, are not the reflections of the Imperial Committee, which is concerned with pressing on us the claims of Empire-grown timber, and it would seem time that architects did revise their requirements in this matter. Canada in particular is capable of supplying great quantities of constructional soft wood of high quality. The Report refers to the claims of Douglas Fir, and we are in a position to endorse the view that what is known in the trade as the fine mild quality of this wood does make excellent joinery if the precaution is taken to allow for its considerable shrinkage by proper drying before use.

The question of adequate supply of a particular wood is a very important matter for the user, and that the industry does not flourish in this country, which has really a good deal of space available for tree planting, appears to be due, not merely to outside competition in the matter of price, but probably more to the absence of administration on a sufficient scale to secure proper marketing conditions. The English Forest Association had this subject under discussion with the R.I.B.A. some years before the war, and our recollection of the outcome is that the Association wanted a market guaranteed and that the architects wanted a definite undertaking that home-grown timber, when specified, would be generally available, and that as neither requirement could be insured matters did not progress. Speaking of home-grown timber, the Report before us says that the trade "is mostly in the hands of small merchants trading independently and each dealing in timber derived from a comparatively small area," and adds: "There are no organised markets for home-grown timber." If the home timber trade is to be developed, obviously an organised market is a first necessity, and no one can be expected to specify home-grown timber without reasonable prospect of its being readily obtainable; the position explains the poor prices offered for standing timber and the consequent lack of enthusiasm of the planting owner. At a time when every encouragement should be given to home industries to aid employment, it would seem desirable that the position should be carefully explored. Tree growing is a very slow process, hence the less the excuse for delay; further, many landowners are by taxation induced to clear timber and it should be made worth their while to re-plant.

The Report refers to the Forest Products Research Laboratory recently established at Princes Risborough and its work upon researches on the properties and preservation of wood. On this latter subject we should like to express our concern at the lack of result which the very protracted efforts of the R.I.B.A. Science Committee have attained in any promise of improvement in the storage of timber at the London docks. No one who visits the docks can fail to regard the decaying masses of timber on the ground upon which new timber is constantly placed as anything but a breeding ground for fungus growths of all kinds, which find their way therefrom into our buildings and cause very heavy annual losses through dry rot and kindred diseases. These conditions produce centres of infection which, apart from the heavy incidental costs of reconstruction often involved, must entail a waste of material which might easily be avoided. There are, no doubt, technical difficulties to be overcome in the introduction of improved storage, but we believe that architects and others concerned in the use of timber would readily concur in some increase of cost in the material which improved storage might involve if the risk of infection could thereby be minimised. If nothing can be accomplished by the representations already made, then we think that powers should be sought to compel a much-needed reform, and we invite Government circles interested in the conservatiou of our timber supplies to set up an inquiry which shall lead to definite action. Our belief is that dry rot could eventually be stamped out just as certain human diseases which ravaged this country a few centuries since have been stamped out, but this needs concerted action among all parties.

To return, finally, to the main object of the Report, which is to assist the introduction of our timbers grown overseas, we are entirely in agreement with the advice given that it is much wiser to concentrate to begin with upon a few woods which have fairly wide specific uses and by building up a good and reliable marketing system to establish these as recognised commodities of our timber merchants. The alternative of bringing forward large quantities of new timbers, many not readily obtainable without much negotiation, can only do harm by creating an impression that our Empire supplies are not reliable enough for general adoption.

# NOTES

**St. Paul's Bridge.**

Many of us have felt a happy relief now that another reverse to the proposed St. Paul's Bridge has been administered. It is curious how lightly the designers of new roadways throw bridges and viaducts over thoroughfares, apparently regardless of the ill effects they have on the property they traverse. The special charms and values of London seem to be always in danger from the heedless zeal of enterprising folk. The claims of traffic are, of course, very serious, and whatever we do to meet them, it is hardly likely we can ever adequately do so. And probably we have greater difficulty amongst would-be reformers than the conflicting mass of those who see an east to west traffic of chief importance and those who are chiefly concerned with traffic to the south and north.

**A Suggestion.**

The intention of the supporters of this scheme—undeterred by the decisive rejection of the plans by the Court of Common Council—again to raise the question at the Guildhall, has drawn the following comments from Mr. Henry Perrin. In the course of a letter to the *Times*, he says :—" Assuming that a new artery for north and south traffic must be cut through the heart of London, it is obvious that it must cross on the level as few as possible of the streams of traffic flowing east and west. This can be done best by making the roadway follow the line of the railway, under Holborn Viaduct, over Ludgate-hill and Queen Victoria-street, and alongside Blackfriars Bridge. This would entail the abolition of Holborn Viaduct and St. Paul's Station as terminal stations ; the construction of a station like that of the Bank underneath Blackfriars to replace St. Paul's and Ludgate Hill Stations ; and the improvement of Snow Hill Station to take the local traffic now dealt with at Holborn Viaduct. It will be objected that the expense will be very great. It will—probably double as much as that of St. Paul's Bridge, perhaps more ; but cost is not the only or the first consideration. We have seen in the past many ' improvements ' carried out in a shabby and ineffectual manner to save expense, whereas a foreign municipality, that of Rome, for instance, to mention only one, by spending the necessary money, would have made the work adequate for the needs of generations to come, and an ornament to the City."

From the International Exhibition of Garden Design.

**Garden Group.**

Mr. C. S. Jagger, A.R.A., F.R.B.S., Sculptor.

**Housing of National Treasures.**

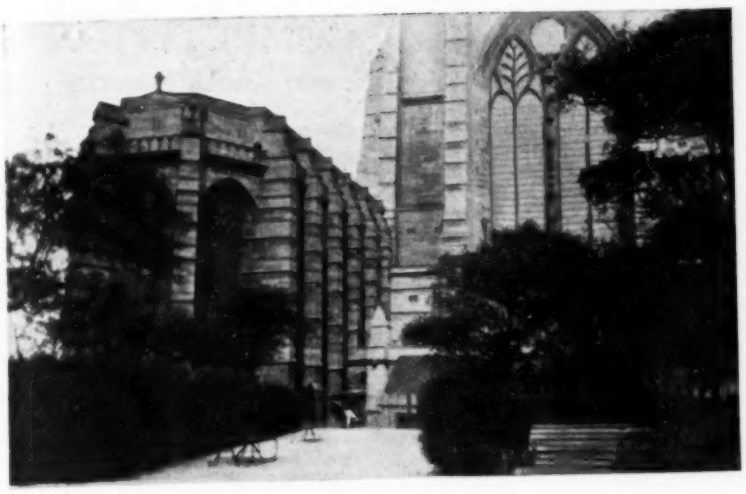
We are very fortunate in this country in the quality and quantity of benefactions to the nation by private individuals. Now, Sir Joseph Duveen has crowned the many fine gifts bestowed upon us by his family in the promise to build a gallery for foreign sculpture at the Tate, to build the necessary extension to the National Portrait Gallery and to provide adequate funds to the Trustees of the British Museum for providing dignified and artistic setting for the Elgin marbles and the Nereid statues. That our invaluable artistic treasures will be adequately displayed and safely housed we certainly now have the assurance by Sir Joseph Duveen's great generosity.

**The Birmingham Civic Society.**

The Report of the Birmingham Civic Society for 1927-28 contains an interesting summary of the activities of the Society during the past year, and includes illustrations of several of the proposals which have received consideration, such as the scheme for reconditioning Aston almshouses, the planning and development of Kingston Hill recreation grounds ; the proposed fountain for Aston Park, and the Archer Petrol Service Station at Shirley. In this station an economical and efficient arrangement is provided, in which the position and pump are finished in two colours only, cream and grey. The station stands, it is stated, " naturally and pleasantly on a tree-bordered road ; its general effect is arresting, but not aggressive ; and in our opinion, it combines the most exacting demands for publicity with a proper regard for its environment." In view of the disfigurement of our town and country roads by unsightly petrol stations, we are glad the Society has shown what is possible. The Report affords ample evidence that the Society is doing admirable work, some of which cannot be recorded, but that it suffers in some measure for want of financial support.

**Liverpool Cathedral.**

Within the last week gifts totalling £30,000 have been handed to the authorities of Liverpool Cathedral—to be devoted to the provision of stained glass and the general building fund. The news is especially gratifying in view of the fact that the Cathedral is, in effect, a venture of faith. Work is now proceeding methodically on the west end section of the Cathedral. We give on page 627 a recent view of the Lady Chapel, the proportions of which are, to a recent visitor, a " never-ending source of wonder and delight."



**Liverpool Cathedral : The Lady Chapel.**
Sir Giles Gilbert Scott, R.A., Architect.

**"The Clerk's Well."**

At a meeting of the St Paul's Ecclesiological Society on the 10th inst. Mr. Arthur Crow, F.R.I.B.A., gave a detailed and interesting account of the Clerk's Well, Clerkenwell, showing how it has been conclusively established that the wellhead and chamber discovered during the rebuilding of Nos. 14 and 16, Farringdon-road are those described by Strype, Stow and other topographical writers in Fitzstephen, as belonging to the Benedictine Nunnery of St. Mary. It is interesting to note that, despite various street alterations since the Middle Ages, the difference of about 12 feet in the level on the east side of Farringdon-road at this point still clearly indicates the retaining wall of the nunnery. The Holy well streamed from this wall, as is shown in Agas's map of c. 1560-70, and water still makes its way through the chalk practically in the same place. We give an abstract of the lecture on p. 629.

**House Building Subsidies.**

Subsidies for houses are at present in the melting pot. It is expected that Mr. Neville Chamberlain, after consulting with the representatives of local authorities, will announce a definite reduction or, at any rate, will issue further restrictions, that will, in effect, reduce the amount of money given, to take effect after April 1 next year. In the meantime it is worth noting that already certain local authorities have decided, of their own accord, to break away from State subsidy and to carry out housing schemes without any financial assistance from the National Exchequer. The Westminster City Council, for example, has decided to build blocks of dwellings which will accommodate in all over 3,000 people and does not intend to ask any Exchequer subsidy in connection with the schemes. The reasons which have led Westminster to assert its independence in this way are interesting to all concerned with the building of houses. "It is," we are informed by a correspondent, "a revolt against the regulations imposed by the Ministry of Health. As is well known, the subsidies can only be given for houses of a particular type and size, with each tenement provided with a bathroom. But the poorer working classes in Westminster want small tenements, low rents, and are said to be satisfied with communal bathrooms. Again, the acceptance of a State subsidy entails control of rents, and the Westminster City Council prefers its freedom in this matter. The cumbrous procedure necessitated under the existing regulations, whereby all plans are submitted to the Ministry of Health, leads to prolonged delay. The Westminster Council, by deciding to proceed without a subsidy, are heading the independent movement of providing for losses on working-class houses out of the rates, and not out of the taxes."

**Houses and Land.**

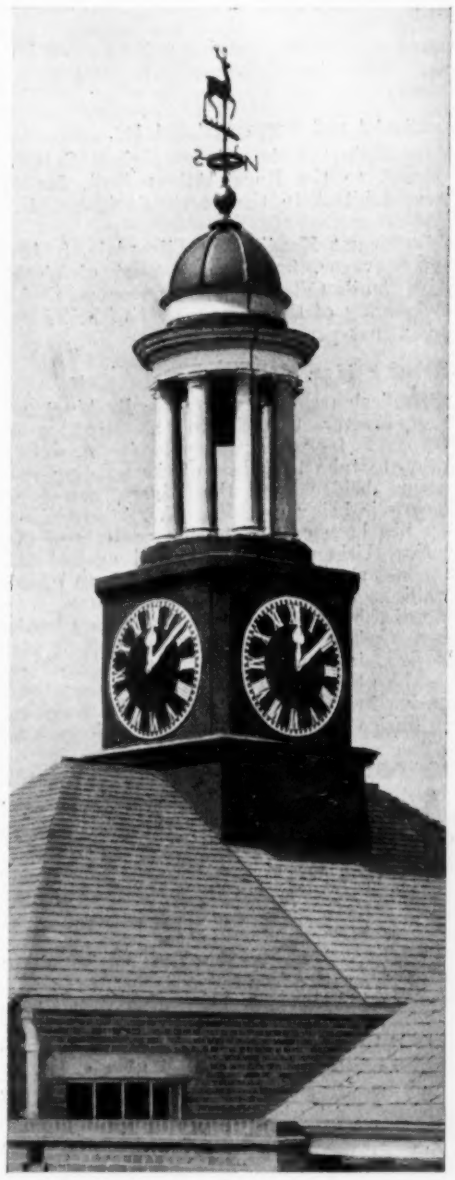
We are reminded by a correspondent of the difficulty in finding houses with a fair amount of land attached, and also of the high cost of land should he desire to build a house. He adds that old houses, with what he considers to be an adequate area of land, are too large to suit modern conditions of living. All this is true, and for the moment we need not quibble about what he might consider an *adequate* amount of land. The truth is that the middle-class man—if we may use such a term—has not yet been catered for. On this matter we have always thought, and still think, that Parliament in refusing to legislate upon housing, as apart from a housing problem, lost, paradoxically, a great opportunity of reducing the housing shortage. Either a maximum reasonable price for land for domestic building might have been fixed, or automatically the number of houses to the acre might have fixed the price.

**Anomalies.**

The amenities of what are known as workmen's houses are not to be enjoyed by everybody in this democratic age. And it is part of the irony of things to-day that there is evidence that the problem of workmen's houses has not been solved. These curious anomalies in the social structure seem to be inevitable. To the social reformer it is much more attractive to hold theories upon how a particular class should live and be compelled to live, than to deal with the matter for the benefit of everybody. Then, unfortunately, there would be an end to the problem. To Mr. Chesterton we owe the definition of a social reformer as one who has done something, when he only wanted something to do.

**The Charm of London.**

In a *Times* "Third Leader" we have a fine description of the charm of London:—"Across London's fairest open space looms London's ugliest pile of building, unparalleled outside the imaginings of a Heath Robinson. The shaft of a campanile that breathes Byzantium soars up from the narrow marches of Pimlico. Over the roofs of flats and offices it salutes the twin towers of a sister faith that tell of Norman England. They in turn pass on the greeting, across the river-bend, to the great dome which rears itself as the very hub of London's encircling wheel."



**The Roan School, Greenwich : Clock Turret.**
Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.

# GENERAL NEWS

**Professional Announcements.**

Mr. A. Douglas Clare, A.R.I.B.A., has joined the staff of Mr. J. Stanley Beard, F.R.I.B.A., with a view to a partnership.

Mr. R. A. C. Churchward, architect, announces that he has removed to No. 12, Victoria-street, Westminster, S.W.1. Telephone number, Victoria 5376.

**The Late Mr. Fred. Higgs's Estate.**

The late Mr. F. Higgs, of North End, Forest Green, Ockley, Surrey, and Christchurch Park-crescent, Streatham, governing director of Messrs. F. and H. F. Higgs, builders and contractors, Herne Hill, left £144,047, net personalty £97,544.

**1928 Housing Increase.**

Speaking at Worthing on October 11, Sir Kingsley Wood said that since October last the number of houses under construction had risen steadily month by month, and at the end of June this year the number was 69,000, as compared with 48,000 at the end of last October.

**A Sky-scraper for Manchester.**

Plans for a 17-story building have been passed by the Manchester Corporation, and it is claimed that when the building is completed it will be the tallest building not only in Manchester but in the whole country. The ground area of the building will be 150 ft. by 120 ft. Electric high-speed lifts will be installed.

**Architects' and Surveyors' Estates.**

Mr. Robert Cole, of Loughrigg, Sutton, architect to the Royal Albert Hall, for 35 years architect to the Stock Exchange, left £2,689.

Mr. Ernest Harding, of Silverdale, Sydenham, surveyor, for 35 years Clerk of Works to St. Paul's Cathedral, being responsible for the hanging of the present peal of bells, left £6,642, net personalty £2,515.

**Marlow Bridge.**

The design submitted by the Buckinghamshire County Council to the Ministry of Transport for a single-span ferro-concrete bridge to take the place of the existing suspension bridge over the River Thames at Marlow is being reconsidered. A new situation has been created by the protests of the Marlow Urban District Council against the proposed structure, which, it has been urged, would be out of harmony with the architecture of the town as well as the scenery in the district. The Ministry of Transport is considering, in conjunction with the Buckinghamshire County Council, whether a new suspension bridge similar in design to the existing bridge could not be erected in its place.

**Estate Development at Hatch End, Esher.**

A large estate of 170 acres near Hatch End Station has just been sold by Messrs. Duncan B. Gray and Partners, of Mount-street, W.1, for the erection of small houses of varying types and construction. The contract for the first 400 houses has been placed with Messrs. Sawyers & Co., of Carshalton.

Building developments are projected at Esher-place, the former residence of the Viscount D'Abernon, which has just been acquired by the Richings Park Estates (1928), Ltd. Plans for the development of the 370 acres by building 1,000 houses have been prepared by Mr. George Clare, F.R.I.B.A., of Harrow. Part contract has been placed with Messrs. Rhys J. Rees & Co., Ltd., of Pontypridd.

**St. Paul's Bridge : Scheme Rejected.**

The proposal for a new bridge over the Thames near St. Paul's Cathedral was rejected on Friday at a meeting of the Court of Common Council, over which the Lord Mayor presided. The scheme was debated for two hours after a deputation against the proposal representing some 8,000 people had been received. The petition pointed out that the proposed bridge would interfere with business concerns in the neighbourhood, and would drive many of them from the locality. The debate was closured after two hours, and Mr. H. Weber Brown, replying to the criticisms, said that all of these were based on the erroneous opinion that no bridge was needed. On a division there voted for the committee's scheme for the bridge 69 and 85 against. It is understood, however, that the Bridge House Estates Committee will again bring the matter forward at the next meeting of the City Corporation.

**Institute of Arbitrators Incorporated.**

The Council of this Institute has made arrangements for six lectures to be given by Capt. W. T. Creswell, barrister-at-law, on "Evidence, Procedure and Practice in Arbitrations," at 28, Bedford-square, W.C.1. The lectures will be held every Thursday at 4 p.m., till November 22, and will be in the nature of a post graduate or "refresher" course and are open to Fellows and Associates of the Institute, and any other interested persons. The syllabus is as follows:—October 18, Lecture I., Submissions to Arbitration; Arbitrators. October 25, Lecture II., Procedure Prior to the Hearing. November 1, Lecture III., Procedure at the Hearing. November 8, Lecture IV., Evidence and Examination of Witnesses. November 15, Lecture V., Making and Publishing the Award; Fees and Costs. November 22, Lecture VI., Proceedings Subsequent to the Award.

**Advertisement Regulation in London.**

By amending by-laws made by the London County Council, confirmed by the Home Secretary on September 27, places in Camberwell, Greenwich, Hampstead, Lambeth, Lewisham, St. Pancras, and Southwark have been added to the schedule of places affected by the Council's existing by-laws under the Advertisements Regulation Act, 1907, section 2 (2), for the regulation, restriction, or prevention of the exhibition of advertisements within the Administrative County of London (excluding the City of London) in such manner as to affect injuriously the amenities of specified public parks or pleasure promenades. The amending by-laws having been confirmed by the Home Secretary are now in operation. Certain places specified in the amending by-laws, but which are not yet open for public use will not, however, come within the operation of the amending by-laws unless and until such places are open for public use.

# COMPETITION NEWS

**Band Pavilion Competition : Dovercourt.**

The following notice has been issued by the R.I.B.A. :—

Members of the Royal Institute of British Architects and of its allied societies must not take part in the above competition because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

**Competition for Concrete Houses.**

The director of the Portland Cement Selling and Distributing Co., Ltd., in conjunction with the *Daily Mail* "Ideal Home" Exhibition, have decided to hold another competition for designs for a concrete house, to cost £1,500. Premiums of £250, £150 and £100 are offered. The assessors are Messrs. E. B. Glanfield, F.R.I.B.A., Oswald P. Milne, F.R.I.B.A., and D. G. Tanner. Details and conditions are obtainable from the Secretary, House Competition, Ship House, Buckinghamgate, S.W.1, not later than October 29. The competition closes upon December 10.

**Clayton Hospital, Wakefield.**

Messrs Massey & Houlsworth, St. John's North and Yorkshire-buildings, Wood-street, Wakefield, have been appointed architects for the proposed extensions to the Clayton Hospital. Their designs, submitted in a limited competition, confined to local architects, have been accepted.

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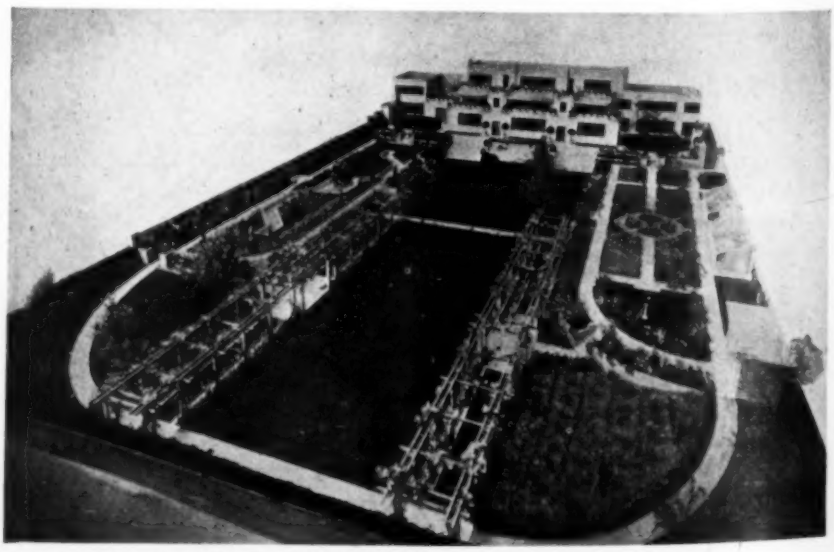
**Exhibition of Black-and-White and Colour Work by Members of the R.I.B.A.**

This exhibition has proved so successful that in response to many requests to extend the period, it has been decided to re-open the exhibition on Monday, November 19, to Monday, December 3, inclusive. The exhibition will be open free from 10 a.m. to 8 p.m. (Saturdays 5 p.m.).

**Board of Architectural Education.**

Attention is drawn to the fact that at the office of the R.I.B.A. two registers are kept, (1) containing the names of advanced students of Recognised Schools, and (2) containing the names of architects willing to take such students. The intention is in this way to assist advanced students up to the stage of the completion of their qualifications for exemption from the final examination; one of the qualifications for exemption from the final examination being twelve months' experience in an office during the fourth and fifth years of the school course. The Council hope that general use will be made of the registers, and that as many architects as possible will place their names upon the register.



From the International Exhibition of Garden Design.

**Model of Garden Design for a Modern House.**

Messrs. Easton & Robertson, FF.R.I.B.A., Architects

# "THE BUILDER" DEBATE—XI

## TOWN OR COUNTRY PRACTICE?

Sir,—"Positive" is a very imperfect prophet; for though he is right enough in assuming that I shall be entirely good-natured in my opposition to his thesis, I am experiencing neither the pity nor the envy he foretold. I cannot pity any more than I can envy a man who is easily content. It is a common mistake which men of the country often make, that human companionship is rare in the heart of the metropolis. The "loneliness of a crowd" is a catch-phrase that makes its appeal like most cheap paradoxes. In point of fact, even London has its own parochial atmosphere, though its parish boundaries are not marked on the ordnance, but carried along at speeds of twenty to fifty miles an hour according to whether it is a bus route or a train. Why "Positive" should assume that he is better fitted to design a house after daily contact with Hodge than with a number of keen business men most of us will find it difficult to follow; for if there is anything at all more intimate in the country acquaintanceship, it is surely discounted by that unpleasant truth, that "familiarity breeds contempt." Apart from that, "Positive" would probably be surprised to hear how many of the "lay figures" have a cheery greeting for me each morning, and even time to spare from newspaper reading for a chat on domestic events. This is merely by way of removing a misconception, and incidentally one point of the argument.

Fortunately, we are not all made alike, or the "Positive" pattern would by this time have turned all the countryside into suburbia. If truth were known, there are, proportionately, probably as many gobbled breakfasts by the village green as in the streets of Surbiton. The alarm-clock industry thrives on the needs of these, and but for rules of living man would still be the cave-dweller.

As regards the "client hunt," I suppose you can pick up the two-roomed cottage job more frequently in a country town than in Gray's Inn; but it takes a thousand of these to make a really big city job, and one fortunate lunch at the club may well lead to five or six times the income of a country practice. The metropolitan may miss the continual rain of "scraps," but he does stand a good chance of a "square meal," if he is keen and able.

"Positive" is evidently a patient soul; but, for my part, I should find it difficult to concentrate upon a scheme of panelling if I were continually interrupted by the voice of my client's wife on the telephone, asking whether the scullery shelves were to be as wide as the diameter of her largest kettle. "Positive" likes that sort of thing—he calls it a process! Personally I should prefer knitting.

I am not quite sure what is meant by "slick efficiency" as applied to the work of the smart London firm building in the country. It sounds rather nice. We can do with any amount of efficiency in our buildings, whether "slick" or otherwise, and I am inclined to think the old chestnut about the architect who forgot the staircase would soon die a natural death if we had a bit more of it. It sounds as if "Positive" were mistrustful of efficiency, or is it only of "slickness"? If only the latter, I am extremely sorry to say that such country work as I have seen contains a lot of instances where the designer, in his fear of the one, has even more successfully missed the other. I really cannot wonder that such jobs should require such a deal of nursing after the throes of birth which many of them experience.

I confess that we profess extreme proficiency, neither in heating engineering, steel construction, nor electrical design. But we have all the more time to devote to building efficiency, and our experts at the other end of the telephone wire make up a fairly good team under our captaincy. Am I unfair in sensing a little envy in "Positive's" reference to our advantages in this direction?

"Positive" is well content with his lot; but then we have already seen that he is of the patient type. I am neither content with my own lot, nor should I be with his. I like my club and access to books and exhibitions and the meetings of the professional and art societies to which I belong. I am anxious to increase my practice; ever keen to raise the standard of my work; I want to win a big competition; I want to see the profession come into its own. Restless?—perhaps; but—I believe—progressive. Perhaps it is that morning hustle, and the sight of those millions striving to keep the country on the move. When I have wearied of the game I may come down to rusticate with "Positive"; perhaps to share a room under that red roof in the valley. I may then be content, but I am quite sure I shall snore!

Negative.

# CORRESPONDENCE

### The Charing Cross Proposals.

Sir,—Having read the editorial note in *The Builder* for October 5, I agree with your correspondent that it is somewhat surprising that the Council of the Royal Institute of British Architects have apparently taken no public interest in the monstrous proposals for the development of the grandest site in London.

The public at present have not been informed of the dreadfully costly London County Council scheme, and as the Royal Institute are publicly recognised as the greatest authority on art and building development they will naturally be expected to advise the public correctly on the present L.C.C. proposals. As it is a case of national importance, public meetings should be called without delay, so that no one later may have any right to complain.

Fredk. Nesbitt Kemp.

# EXHIBITION NOTES

### BEAUX-ARTS GALLERY.

Some seventy water-colours by Lily Waring, from France and Jugo-Slavia, are on view at the Beaux-Arts Gallery. These are vigorous and full of rich colour, and in some cases have a wonderful vividity suggesting a rapid sequence of natural effects. One would hardly expect the delicate and charming "Buttercups" (63) to be by the same hand as these other drawings. A striking and interesting architectural effect is "Perti," showing a square tower with angle pinnacles and central octagon. The collection of early maps at this gallery will interest our readers. It is curious to note how the pictorial entered in these designs, with views of buildings and outlines of hill. Some of these dating from 1611 are admirable specimens of decorative drawing.

### FINE ART SOCIETY.

The water-colours of Sussex by Garnet Wolseley, at the Fine Art Society, are well worth seeing. Not only are the old buildings depicted with great richness and force, but some of the atmospheric effects in the landscapes have much value. The "Church-street, Steyning," is a good example of the telling result which the artist achieves by pleasant rich colour and vivid lighting. The "Lancing College" is another instance of good lighting and pleasant colour.

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**Hooks in a Church Tower.**

Two hooks, 7 ft. long, each weighing three-quarters of a hundredweight, have been found, says the *Times*, in the tower of Iver Parish Church, Bucks. Similar hooks were kept in towns and villages to pull off the thatch of burning cottages, and there are examples of these at Ivinghoe, Bucks, and at Welwyn.

# "THE CLERKS' WELL"

On October 10, at 9, Conduit-street, W., Mr. Arthur Crow, F.R.I.B.A., lecturing on this subject to the St. Paul's Ecclesiological Society, said that a relic of very great interest to all lovers of old London had been brought to light by the discovery of the Clerks' Well, in the course of the excavations for the rebuilding of Nos. 14 and 16, Farringdon-road (formerly Nos. 1 and 2, Ray-street). According to the lecturer, Fitzstephen, in his preface to the life of Thomas à Becket, writing in 1174 of the "Most Noble City of London," says:—

"There are also about London, on the north side, excellent suburban springs, with sweet, wholesome and clear water that flows rippling over the bright stones; among which Holy Well, Clerkenwell and Saint Clement's are held to be of most note; these are frequented by greater numbers, and visited more by scholars and youth of the city when they go out for fresh air on summer evenings. It is a good city indeed when it has a good master."

There could scarcely be a doubt, continued the lecturer, that the well accidentally discovered by a workman was the well referred to. The words "Site of Clerks' Well" were printed on the Ordnance Survey of 1894, near the place where the well had been found, but in old English lettering that usually denoted lost objects of antiquity.

Subsequently the well appeared to have become hopelessly polluted, and by order of the authorities was finally closed and presumably covered over with rubbish in 1857. With the merging of Ray-street in Farringdon-road its existence was forgotten, and, indeed, it was assumed to have been destroyed. Two distinct objects had been discovered, viz., (*a*) a circular brick well of the usual type, about four feet in diameter, and (*b*) a rectangular brick and stone chamber about 12 ft. long by 7 ft. wide.

The well was discovered on January 18, 1924, in the course of excavating the ground under the northern portion of No. 16 for the purpose of forming a basement story. Under the wood and stone floor was found brick rubbish and earth with pieces of chalk and ragstone, below which, at a depth of 2 ft. 9 in., was the circular well, covered with thick elm boards, resting on a beam, all badly decayed. The well was 13 ft. 6 in. deep below the street footway, and was half full of water. Further excavations disclosed the construction of the well, as seen in the photograph. The brickwork was 14 in. thick and built in a very strong mortar, made apparently with hydraulic lime, the inside and outside of the brickwork being rendered with the same material, and on the outside, in addition, was a coating of puddled clay. On the top of the 14-in. brickwork, two courses of bricks, nine inches thick, had been laid, one course flat and one on edge, with scarcely any mortar in the joints. Those two courses had obviously been added at the time the well was covered over.

On the well being completely emptied at a later date, a small lead-lined inlet about 6 in. high by 3 in. wide was found at a height of about 1 ft. 8 in. above the bottom of the well, and almost vertically under the pipe leading up to the pump. It came from the direction of the north-west angle of the well chamber, but below the floor.

As to the parish clerks themselves, said the lecturer, it should be observed that the clerks were a fraternity of the minor orders of the church, consisting of acolytes, exorcists, lectors or readers, and doorkeepers. They were licensed as a guild under the patronage of St. Nicholas in 1233, and in 1442 received a charter. The guild was dissolved and re-incorporated during the reign of Henry VIII., and after suffering various changes of fortune during succeeding reigns, was granted a charter by James I. in 1611. It still existed as one of the lesser city companies.

# THE DEPARTMENT STORE—I

By F. E. BENNETT, A.R.I.B.A.

In the remarks which follow, the intention is to deal with various parts of the department store more or less in the order in which they occur when a building is being initially designed. Reference is made to certain existing buildings.

**The Site.**

The site with three sides of street frontage and the fourth facing on to an open court offers the best facilities for planning the big store. The lifts and services can then be placed against the rear wall, and the other three sides can remain open for display and the circulation of the public, and the rear court allows for the approach of delivery vans and the parking of motor-cars. Debenham and Freebody's building has a site like this, but other big stores are mostly on island sites or closed in at the back. The latter forms must necessarily be usual because in the situations where big stores are built the land is too valuable to permit courtyards of sizes more than is necessary to provide light and air.

Beyond a certain width, sites are not suitable. If they are built upon solidly, parts of the building are too far away from the daylight, and light wells, if used, cut up the floor space, which should be kept in straight rectangular sections to be of proper value. For a solid building, a dark centre of four and a half bays distance from an outside window, as in the Saks building, seems to be a maximum. The centre of the Peter Robinson building is three and a half bays distant, and Barker's is three and a half. If the building is very large, like Selfridge's, it follows that its shape must be long and comparatively narrow. Wanamaker's Stores, in Philadelphia, which measures 480 ft. by 250 ft., is also a long rectangle, but its great width of eleven bays, each nearly 23 ft. wide, compels the introduction of a large central light well. Whiteley's store, in Bayswater, which was rebuilt in 1912 by Messrs. Belcher & Joass, has two circular light wells, although the building is only six bays wide. The Lasalle and Koch building, in Toledo, is an example where two sides are closed in. Owing to the large amount of dark space occurring in the department store building, it is necessary for the open sides to face on to wide streets, so as to gain as much light as possible.

**Floor Distribution.**

While the American store rises to a height of as many as twelve stories above ground, the usual maximum in London is five or six. With seven stories, taking the full height allowed by law—80 ft. plus, say, 20 ft. in the roof—the average floor height would be 14 ft. 3½ in., floor to floor. It is the custom to make the ground floor higher than the others because it is the most important floor, with the first floor above still higher than the average height for the whole building. In Barker's new building the ground floor proper is only about 13 ft. 6 in. high, but a mezzanine floor above it is cut away over a large portion of the ground floor, leaving a clear space of about 26 ft. 6 in. A similar construction exists in the new portion of the Selfridge building. On passing through the doors of the main central entrance, one enters a section which runs up two stories, giving the effect of an entrance hall.

The four most important floors of Wanamaker's average 24 ft. 8 in. in height, with the other floors at 17 ft. 5 in. This is a lavish allowance, and much more than necessary for a medium store, but 12 ft. is a minimum for a selling floor if it is not likely to be crowded. When a great number of people are collected on a floor with a low ceiling, the apparatus for ventilation is liable to be inadequate and the atmosphere becomes very unpleasant.

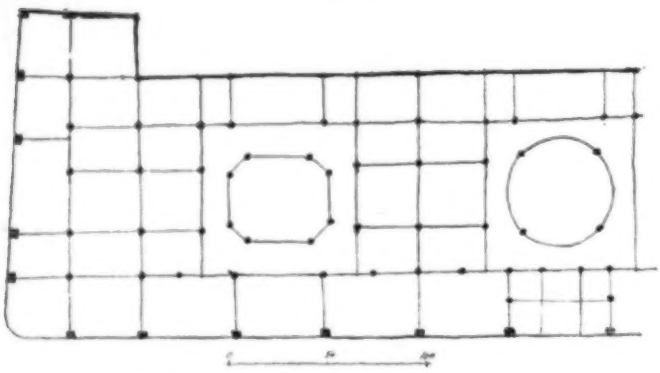
Below the ground there may be one, two, or three stories. Whiteley's has one, Barker's two, and Peter Robinson's three. Sometimes the third basement floor is the boiler-house and engine-room, covering only a portion of the site.

The two stories in the roof allowed under the London Building Act are usually finished on the interior with vertical faces setting back within the required angle. The vertical faces allow a better and more continuous fenestration than the inclined surfaces of roofs will allow.

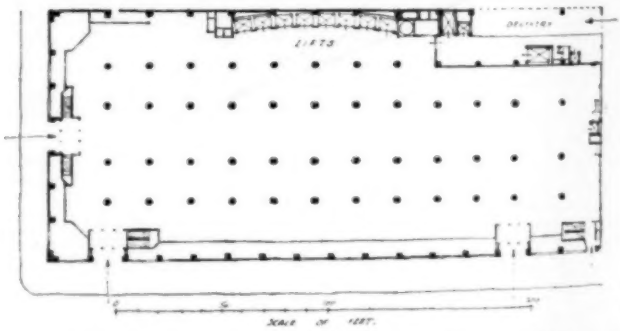
**The Ground Floor.**

The Ground Floor is the most difficult one to arrange, because the greatest activity takes place on it. Every possible inch is wanted for selling space, and at the same time provision must be made for the circulation of customers, staff, and goods. Working on the idea, however, of getting everybody and everything away from the ground floor and up or down or away from the building as quickly as possible, the planning becomes simpler. Staircases placed immediately inside the entrances carry people direct to the other floors. Lifts are grouped together in central positions, so that they can be seen easily; the staff mount or descend from their special entrance to the rest-rooms, locker-rooms, and lavatories quickly; and incoming goods are placed on large freight lifts opening directly on to the back face of the building, to be carried immediately to the receiving department, situated in the first basement or perhaps on an upper floor. Outgoing goods, conversely, are conveyed from the despatch section by freight lift to the ground floor, where they are loaded directly into vans backed up to the face of the building.

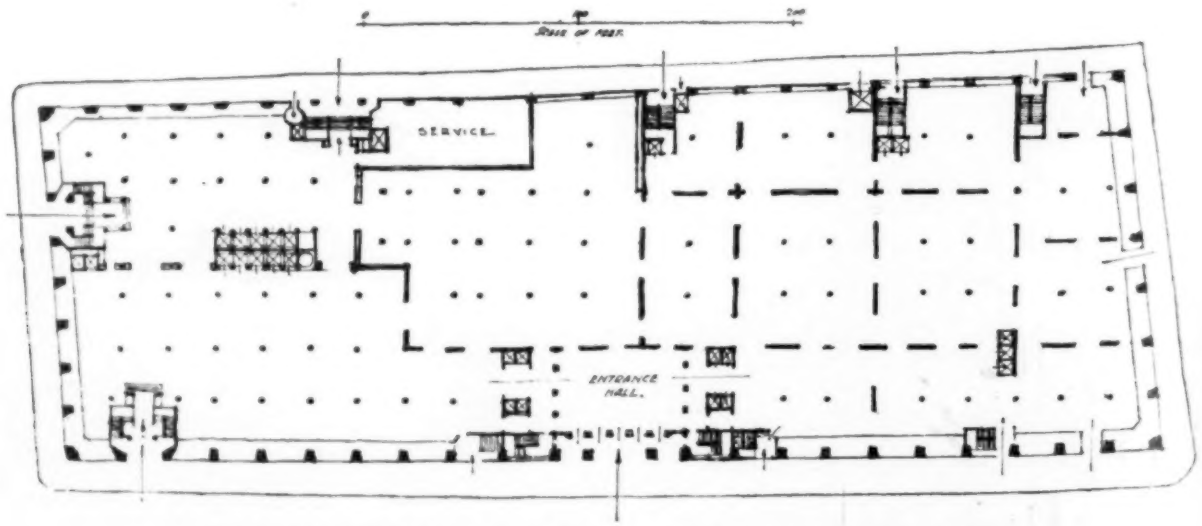
The service portion sometimes spreads itself across the whole length of the back of the building, while in other instances it is confined within extraordinarily small space. In Peter Robinson's, which has



Steelwork of portion of Whiteley's Store.




Lasalle & Koch Store, Toledo: Ground Floor.




The completed Selfridge Building: Approximate Ground-Floor Plan.

streets on all sides, the service portions are disposed with peculiar clearness, comprising four large goods lifts and two double-deck stairways only. The double-deck stairway provides exit for customers and circulation for the staff within the one staircase well, but each way being quite independent of the other. Where the back of the building is closed in, the plan which arises is one with a long range of lifts and service approach at the back corners—as in the Saks building and Barker's. The placing of lifts in a range at the back wall is supposed to be good, because customers entering at the street doors who want to go up have to pass among the counters of the ground floor on their way to the lifts. It is for this reason that the placing of staircases immediately inside the entrances is sometimes condemned.

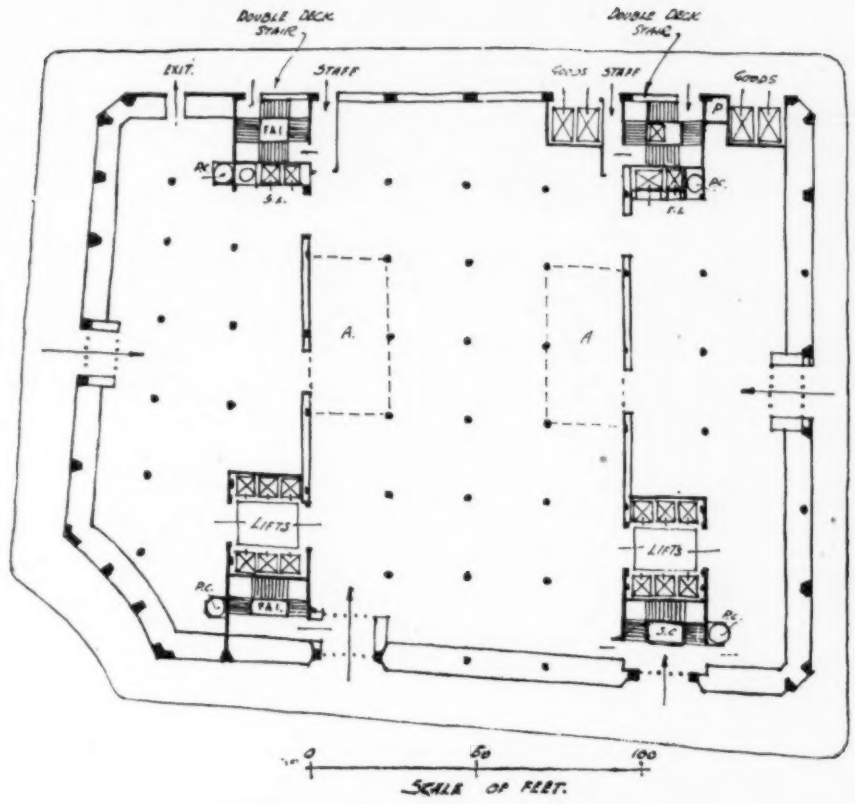
Basements are often given over to the retailing of cheaper goods, as at Selfridge's. In such cases special provision must be made, in the first place, to attract people down from the ground floor by an easy approach, and, secondly, to keep those people going into the basement separated from those who use the ground and upper floors only. In the Selfridge building stairs lead direct from the main front to the basement, and in addition there is a special entrance which opens on to an escalator going down.

The selling of dresses for women is a very profitable part of the business of a department store, so the first floor is often given over entirely to this. Ladies' lavatories, writing and rest rooms, therefore, come on the first floor, and special consideration can be given to the arrangement of the fittings, which will include wardrobes, settees, and dressing-rooms. Architectural designs will probably be incorporated in the placing of these.

The restaurant and kitchen go on the top floor, or it is good to have the restaurant running through two floors, with stockrooms over the kitchen.

**The Steelwork.**

After the main dispositions have been settled, the plan of the department store is practically determined by the spacing of the steel stanchions. Bearing in mind the great aim to provide the maximum floor area for the display and selling of goods, the site has been filled out solidly, the service parts reduced to a reasonable minimum, and the provision of stairs and lifts has been nicely judged to provide just an adequate means of circulation for the traffic which the building is likely to have.



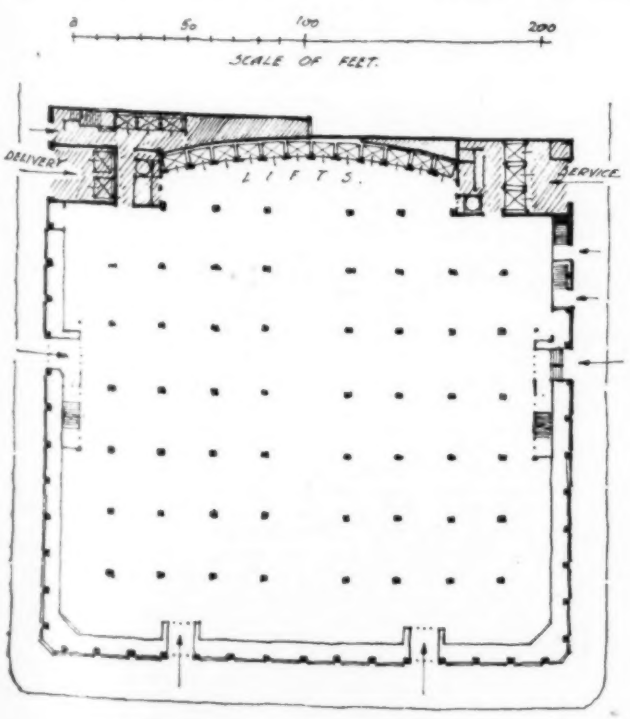

**Peter Robinson's Store, Oxford Circus.**

A=Area on 2nd, 3rd and 4th Floors. P.C.=Parcel Conveyor.
S.L.=Staff Lift. S.C.=Show Case.

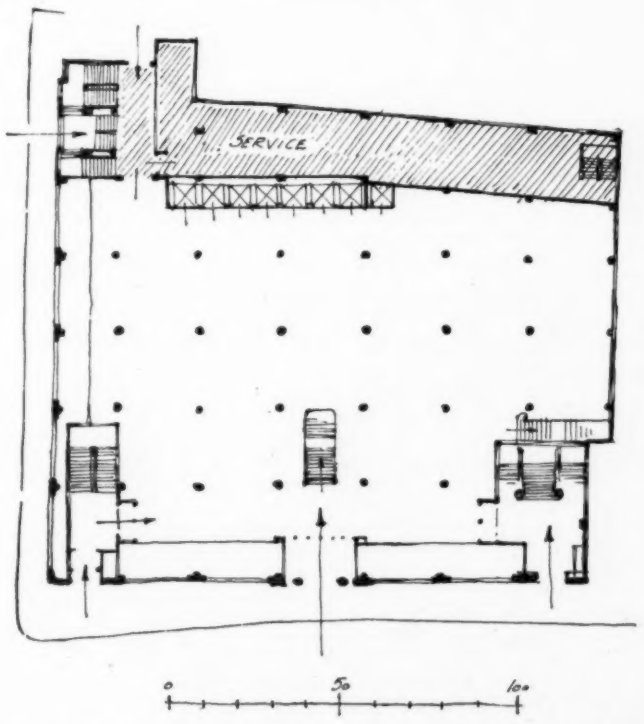
It is usual to arrange the steel bays as nearly as possible into squares, measuring somewhere between 20 and 25 ft., although this dimension is sometimes considerably increased. The square bay is desirable for several reasons. The accentuation of one axis over another is avoided, so maintaining the interest towards the centre of the building; columns irregularly placed over a wide area of floor can look singularly unpleasant; greater freedom is allowed in the rearrangement of show cases and counters, and a greater standardisation of parts is possible in the construction. Beams and stanchions are of the same dimensions, and portions of decorations are symmetrical. The size of bay 20 ft. to 25 ft. is found to be suitable for the types of floor construction generally in use.

As it is the practice to maintain the regular positions of the stanchions on the outer walls, so that the beams are carried on direct points of support, the elevations have to be considered in their general form before the steelwork can be finally settled. This complicates the problem considerably, because the elevation of a department store is not one of the easiest things to design.

But it does not necessarily follow that the wall stanchions have to coincide with the beams. Where they do not coincide, some irregularity in the form of the ceilings occurs, but if the position of the beams is ignored entirely, the designing of the elevations is enormously opened up. In the Saks store and the Lasalle and Koch building—both comparatively recent—this has been done.




**The Saks Store, N.Y.: Ground Floor.**




**The Barker Store, High Street, Kensington: Ground Floor.**

# ILLUSTRATIONS

## PLATES

**University of Durham: New Lecture Rooms.**

THIS building is being erected to provide four new classrooms and a lecturers' common room on two floors, taking the place of accommodation which will be absorbed into the extension of the Cosin's Library. The building adjoins the old Almshouses in Palace Green, which were erected in part by Bishop Langley and completed by Bishop Cosin. It is designed in the same manner to form the nucleus of a quad or court upon the site between Palace Green and the North Bailey. Cosin's Almshouses now form the University Museum. Local stone has been used in the elevation.

The architect is Mr. W. D. Caroe, F.S.A., Consulting Architect to The Dean and Chapter. The builder is Mr. David Glen, of Jarrow-on-Tyne.

**The Roan School, Greenwich.**

The Roan School for Boys, at Greenwich, which accommodates 500 boys, is symmetrically laid out on the double-quadrangular plan, occupying a fine site on the summit of Maze Hill, facing Greenwich Park. The main entrance front faces south-west and has return wings facing south-east and north-west, with the assembly hall in the centre, which is connected at the rear to the wings by open covered-ways, so forming a quadrangle on either side of the assembly hall. The entrance front and the south-east wing are allocated to the 18 classrooms, while the north-west wing houses the laboratories, lecture-room and handicraft-room, etc. The art room is at the rear of the south-east wing, facing north, and is provided with large north-light windows. The cloak-rooms and lavatories are at the rear of each wing, adjacent to the pupils' entrances.

The main central entrance leads directly through the crush hall to the assembly hall, which also serves as a dining-hall. The kitchen department is immediately behind the large stage, being cut off by serving lobbies. The heating chamber and fuel stores are below the kitchen department. The headmaster's and secretary's rooms are on either side of the library on the first floor over the main entrance, adjacent to which are the two approach staircases from the crush hall below. The library, which also serves as a board room for the Governors, is simply treated, and has a fireplace at each end with overmantels for the inscription of distinctions gained by the scholars.

The plan provides adequate store and cleaners' accommodation and well-disposed exit stairs from the upper floor. The masters' lavatory and staff room are conveniently arranged. The classrooms are amply lighted, the windows being specially designed to admit the maximum of light and air. In each case the window opens fully, so that in warm weather the school is a near approach to an open-air school. The gymnasium is in a separate building to the north-east, fitted with the latest gymnastic apparatus, changing rooms, and hot and cold shower baths. A spacious playground and adequate bicycle sheds occupy the south end, and at the extreme southern corner the caretaker's house is situated.

The external walls are of sand-faced bricks, the appearance of which is enhanced by white pointing. The base of the façades is of picked dark purple bricks, with a string-course above of semi-Roman tiles. The quoins and dressings are of dark cherry reds, while the general filling is of mixed reds. The roofs are covered with green Westmorland slates laid in diminishing courses. The stonework to the entrance front is artificial Portland stone.

Internally the walls are covered with white glazed tiling to a height of 3 ft. 6 in., the plastering above being distempered primrose, while the woodwork throughout is stained green, except the panelling in the assembly hall, which is treated in its natural colour. The site is surrounded by a high brick wall, except the portion in front of the entrance façade, which has well-designed entrance gates and railings.

The general contractors were Messrs. Bovis, Ltd., and the following were sub-contractors :—Thos. Lawrence & Sons, facing bricks; Roberts Adlard & Co., slates; F. Bradford & Co., reconstructed Portland stone; the Crittall Manufacturing Co., steel windows; Doulton & Co., sanitary fittings; Rosser & Russell, Ltd., heating and hot-water supply; Martin van Straaten & Co., wall tiling; the Art Pavements and Decorations, Ltd., floor tiling; the Electrical Installations, Ltd., electrical work; W. Bainbridge Reynolds, Ltd., wrought ironwork; the Acme Flooring Co., wood-block flooring; Redpath, Brown & Co., Ltd., steel roof trusses; F. A. Norris & Co., iron fire-escape staircase and collapsible gates; Brookes & Co., Ltd., cloak-room fittings; the North of England School Furnishing Co., laboratory fittings; the South Metropolitan Gas Co., cooking apparatus; James Hill & Co., Ltd., ironmongery; Bratt, Colbran & Co., fireplaces; the May Construction Co., Ltd., acoustic plastering; Gillett & Johnston, clock in turret; Arthur Lyon & Co., synchronised clocks and bells; J. W. Gray & Son, lightning conductor system; Spencer, Heath & George, Ltd., gymnasium fittings and apparatus. Mr. A. J. Oakley, A.R.B.S., was responsible for the stone carving.

Sir Banister Fletcher, F.R.I.B.A., F.S.I., and Mr. Percy B. Dannatt, F.R.I.B.A., F.S.I., are the architects.

**The New Royal Horticultural Hall.**

This hall, which has been designed by Messrs. Easton & Robertson, FF.R.I.B.A., is interesting in that it constitutes one of the few buildings in England inspired by modern Continental development. The construction generally is ferro-concrete, but the main elevation to Greycoat-street is in brick, apart from the stone ground story. This story has a central bay, in which are placed the three entrance doorways. It is in the interior that the modern character is most apparent. Elliptical ferro-concrete trusses have the effect of diminishing the break between walls and ceiling, and provide an effect of added spaciousness. The interior is notable for its excellent lighting.

The general contractors were Messrs. Foster and Dicksee, Ltd., of Chelsea, and among the principal sub-contractors were :—Sanitary work, Dent and Hellyer; electrical work, Electrical Installations, Ltd.; sprinklers and hydrants, Mather and Platt; passenger, specimen and goods lifts, Express Lift Co.; vacuum plant, Sturtevant Eng. Co.; heating and ventilation, Richard Crittall & Co., Ltd.; patent glazing, Henry Hope and Son; stallboard lights, British Luxfer Co.; steel windows, Crittall Manfg. Co.; collapsible gates, Potter Rax Gate Co.; revolving shutters, E. Pollard & Co., Ltd.; ornamental leadwork, Birmingham Guild; acoustical plastering, May Construction Co.; kitchen equipment, Benham & Sons, Ltd.; terrazzo, Marbello Co. and Carter & Co., Ltd.; marblework, H. T. Jenkinson & Sons; wood-block floors, Hollis Bros.; wall tiling, Martin van Straaten; ornamental metal doors, Bagués, Ltd.

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**New Public Library, Westminster.**

This new building, which has been recently opened, in Orange-street and St. Martin's-street, Leicester-square, consists of a public library for the City of Westminster, with residential flats over. The architectural style is classical in character, judiciously restrained in treatment, so as to produce simple, yet dignified expression. The roof is of Westmorland green slates, with a large, simple stone chimney-stack above, giving interesting colour and finish to the building. The two principal elevations are executed in Portland stone, and the remaining elevations are finished in selected stocks and white glazed bricks. The building rises from a spacious basement, and has five equally large floor areas above. The greater part of the basement has been specially equipped for the storage of books, while the remaining portion is allotted to staff mess rooms, store rooms, lavatories and heating chamber. The ground floor, with its entrance in St. Martin's-street, constitutes chiefly the lending library, a directories reference room, staff workshop, etc. Approached by a wide "Biancola" stairway from the entrance hall, the greater part of the first floor is given to the reference library. There is also a sub-librarians' office and stationery store, staff room and other subsidiary accommodation. The second floor is chiefly equipped for book storage, and contains also the caretaker's flat. The third and fourth floors comprise two large residential flats with spacious reception rooms, bedrooms, etc. The third floor flat is at balcony level. The flats, which are entered from Long's-court, are served by a "Biancola" stairway and a passenger lift. The building is equipped with an electric passenger lift, serving all floors. There is also an electric book lift serving the library floors. The building has a steel-framed carcase, cased with concrete, and reinforced fireproof floors throughout.

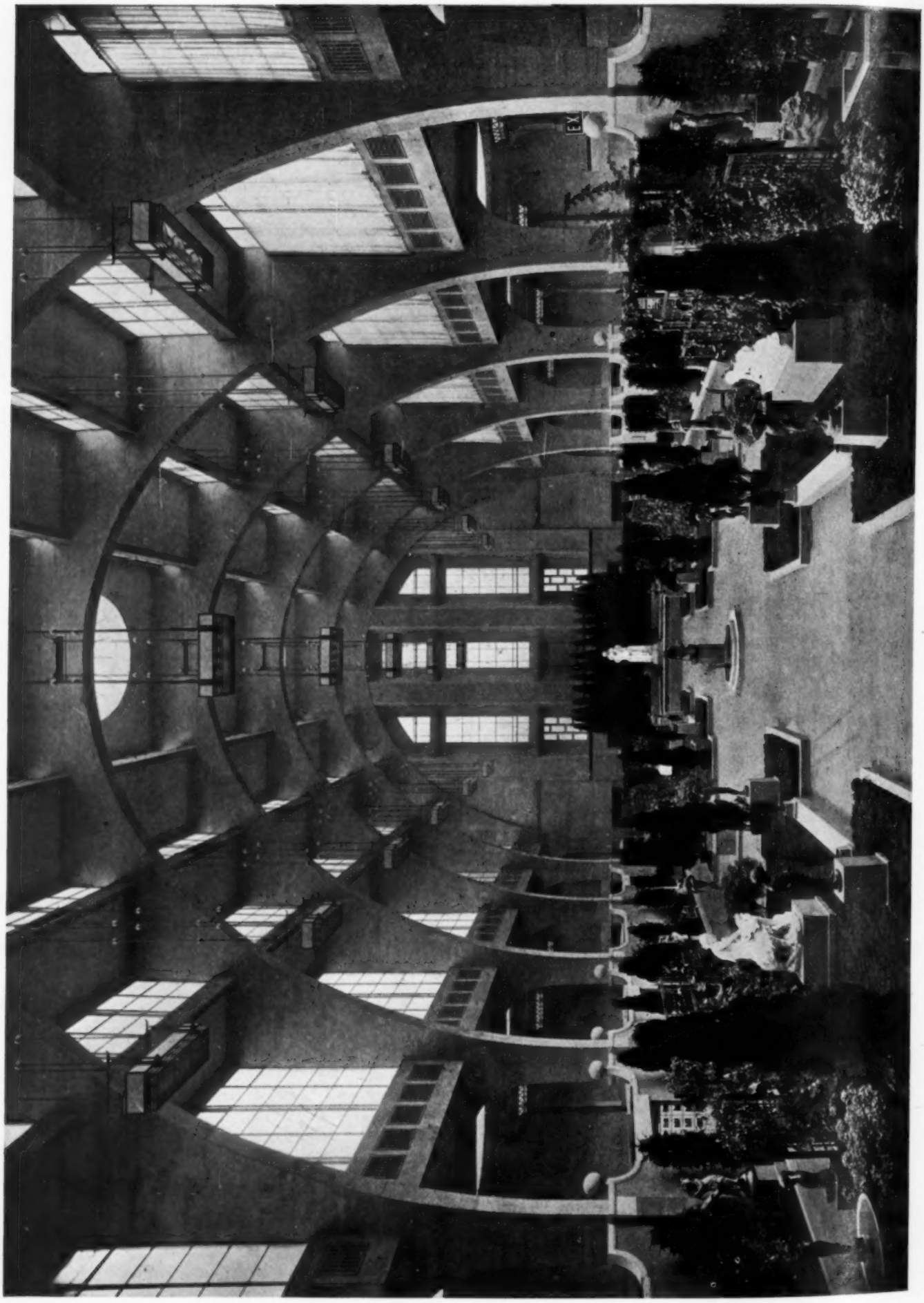
The consultant engineers for the structural steelwork were Messrs. Reade, Jackson and Parry. The general contractors for the work were Messrs. Walden and Co., Ltd., of Swallowfield, Reading, Berks, and the principal sub-contractors were as follows:—Stonework, Bath and Portland Stone Firms, Ltd.; steelwork (structural), Dorman, Long and Co., Ltd.; reinforced fireproof floors, Horace W. Cullum and Co.; heating work, William Freer, Ltd.; steel casements, The Morris Singer Co.; metal grilles and balustrading, The Birmingham Guild, Ltd.; plumbing and sanitary works, Dent and Hellyer, Ltd.; "Biancola" work, The Art Pavements and Decorations, Ltd.; lifts, The Express Lift Co., Ltd.; steel library fittings, Roneo, Ltd.; electric light, bells and telephones, Waring, Withers and Chadwick; gas fires, etc.; The Gas Light and Coke Co.; slating, Mr. J. P. Walshe; asphalting, Permanite, Ltd.; wall tiling, Martin Van Straaten and Co.; fibrous plaster and stuc work, G. Jackson and Sons, Ltd.; plaster work, Lunstone Concrete Co.; stone carving, Mr. James Walker; wood block flooring, Acme Paving and Flooring Co. (1904), Ltd.; door fittings and furniture, J. M. Pirie and Co., Ltd.; pavement lights, Haywards, Ltd.; fireproof glazing, Cuthbert and Taylor, Ltd.; floor springs, N. F. Ramsay (London), Ltd.

Messrs. A. N. Prentice are the architects.

**The New Tyne Bridge.**

The new road bridge, which was opened by H.M. the King, crosses the Tyne a few hundred yards east of Sir Robert Stevenson's high-level bridge, and joins Gateshead with Newcastle. It is of the "two-pin" type, having but a single arch, which spans the river from bank to bank. This is the largest steel arch in the country, measuring 531 ft. in length, and weighing 4,000 tons. It carries a roadway 38 ft. wide, and is capable of taking a load of 100 tons on four wheels across the river at a height sufficient to give a clearance of 84 ft. above the water at high tide. If the approaches to the bridge are also taken into consideration its over-all length is 1,270 ft., whilst another 3,000 tons must be added to its weight. The cost of the bridge is estimated to be £1,150,000.

The engineers for the work were Messrs. Mott, Hay and Anderson, with whom were associated Messrs. Coode, Fitzmaurice, Wilson and Mitchell, and the architect was Mr. R. Burns Dick. Messrs. Dorman, Long and Co., for whom Mr. Ralph Freeman, of Sir Douglas Fox and Partners, acted as consulting engineer, manufactured the steel and fabricated it at their Middlesbrough works, and their bridge department carried out the erection and the whole of the civil engineering works, under the direct supervision of its head, Mr. Charles Mitchell.

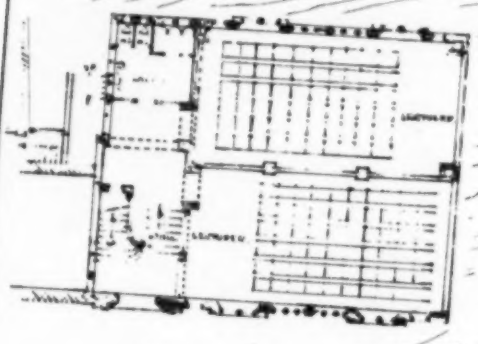


The New Royal Horticultural Hall, Westminster : Interior.
Messrs. Easton & Robertson, F.R.I.B.A., Architects.

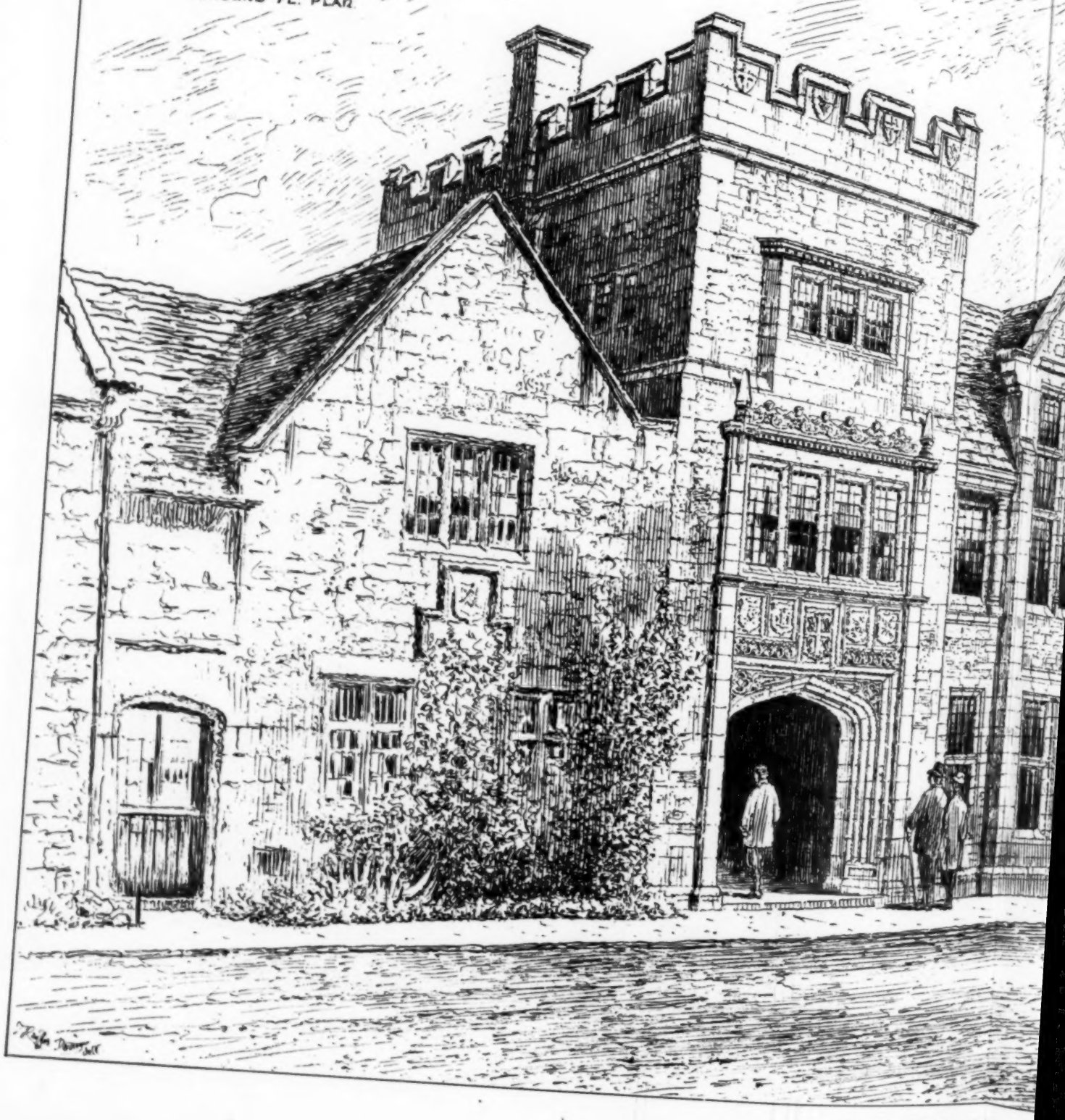
The New Royal Horticultural Hall, Westminster : Interior.

Messrs. Easton & Robertson, F.F.R.I.B.A., Architects.

UNIVERSITY OF DURHAM NEW LECTURE ROOM W.D CARÖE F.S.A AR

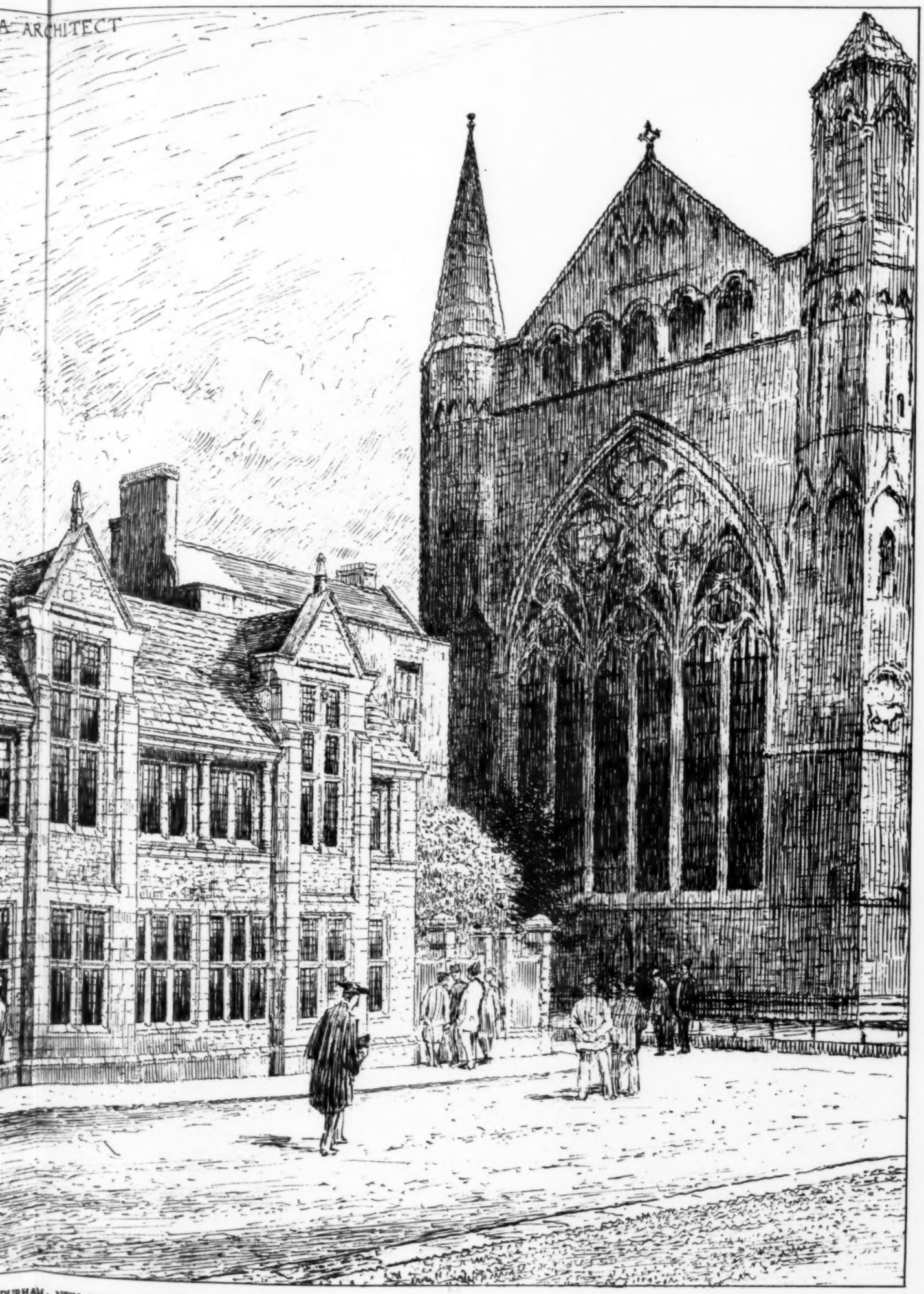


GROUND FL. PLAN



UNIVERSITY OF DURHAM: NEW
Mr. W. D. Caröe. F.S.A., F.R.

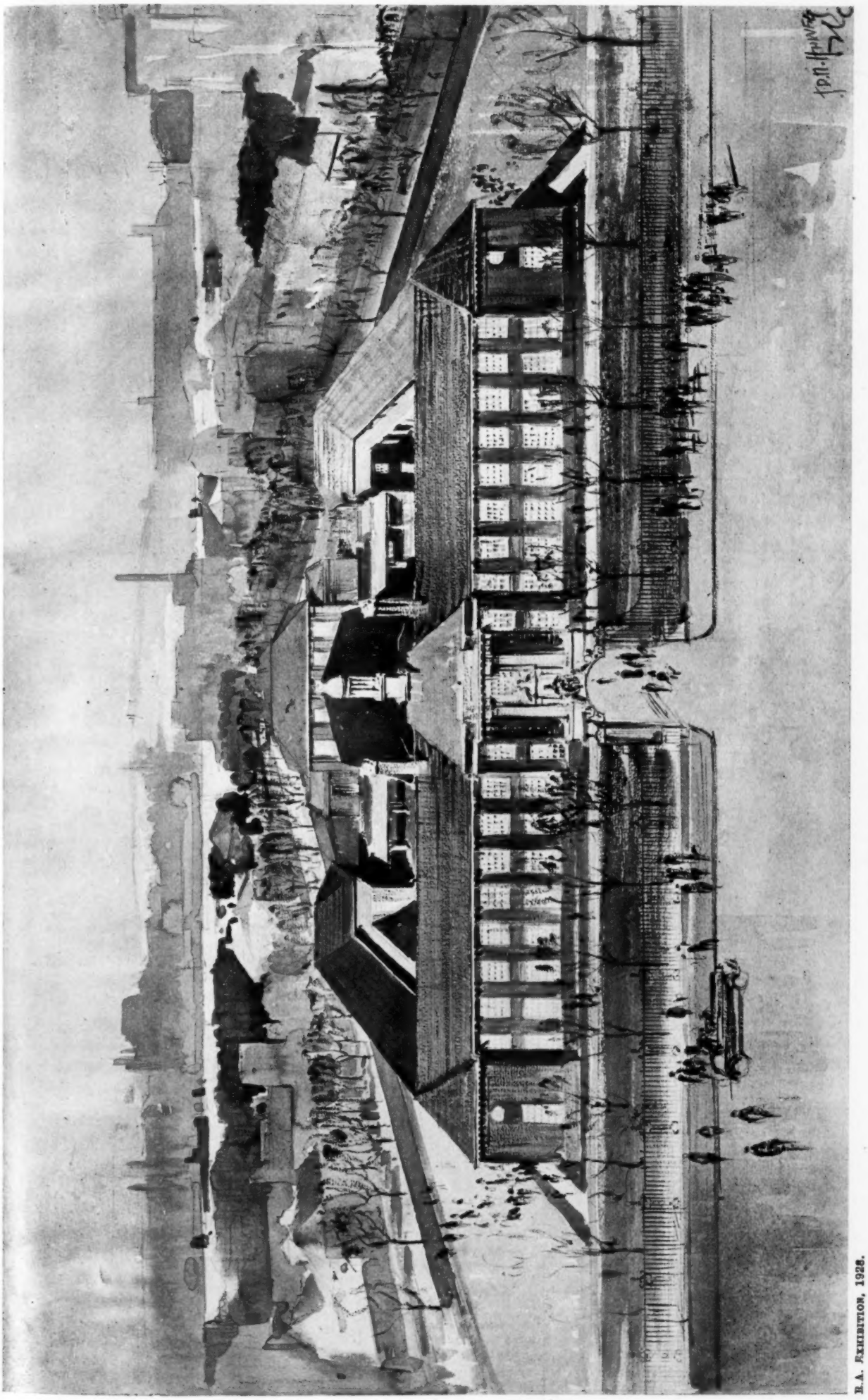
A ARCHITECT



DURHAM: NEW LECTURE ROOM.
ie, F.S.A., F.R.I.B.A., Architect.

THE ROAN SCHOOL, GREENWICH: ENTRANCE FRONT AND SOUTH-EAST WING.

Sir Banister Fletcher, F.S.A., F.R.I.B.A., & Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.



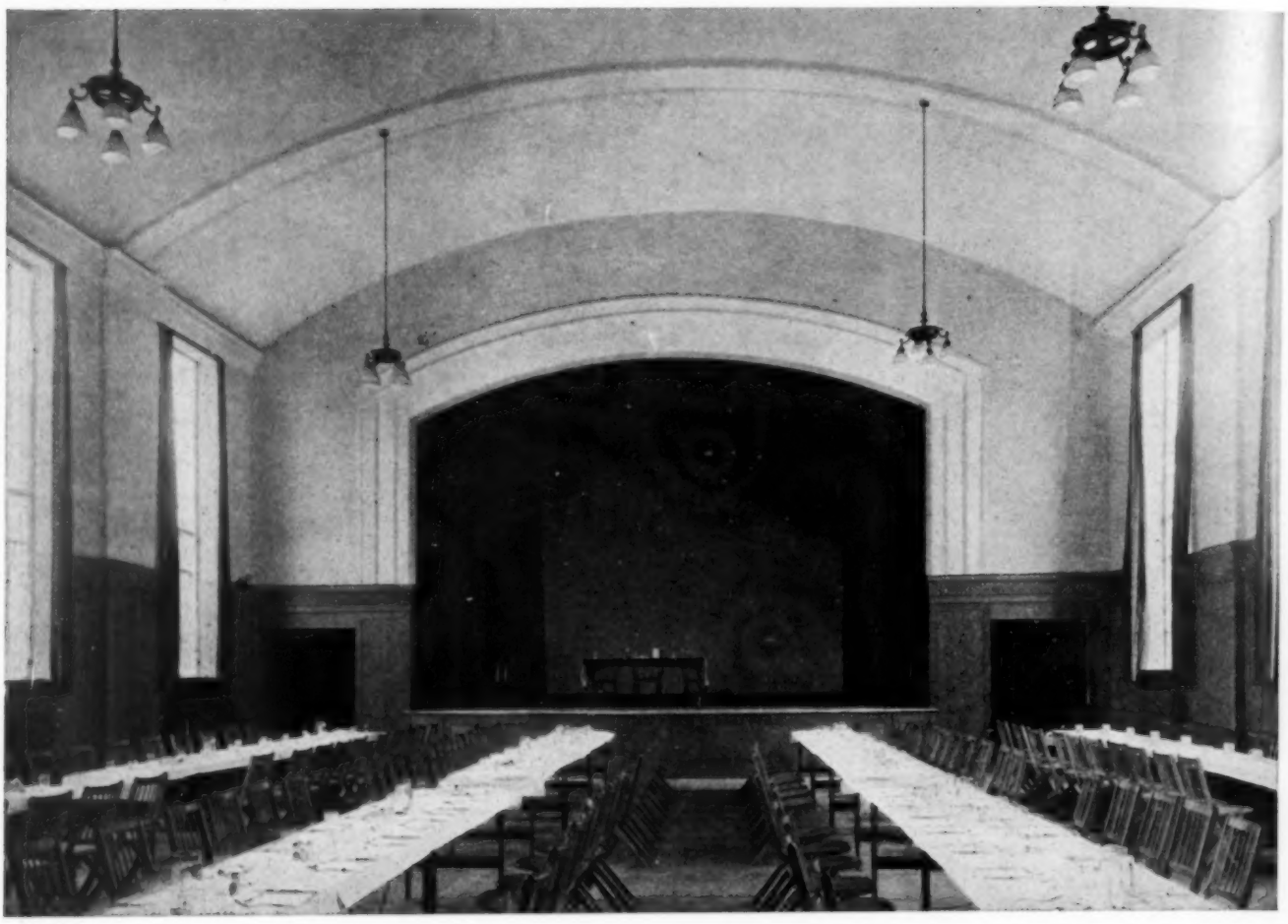
The Roan School, Greenwich: Perspective View.

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.

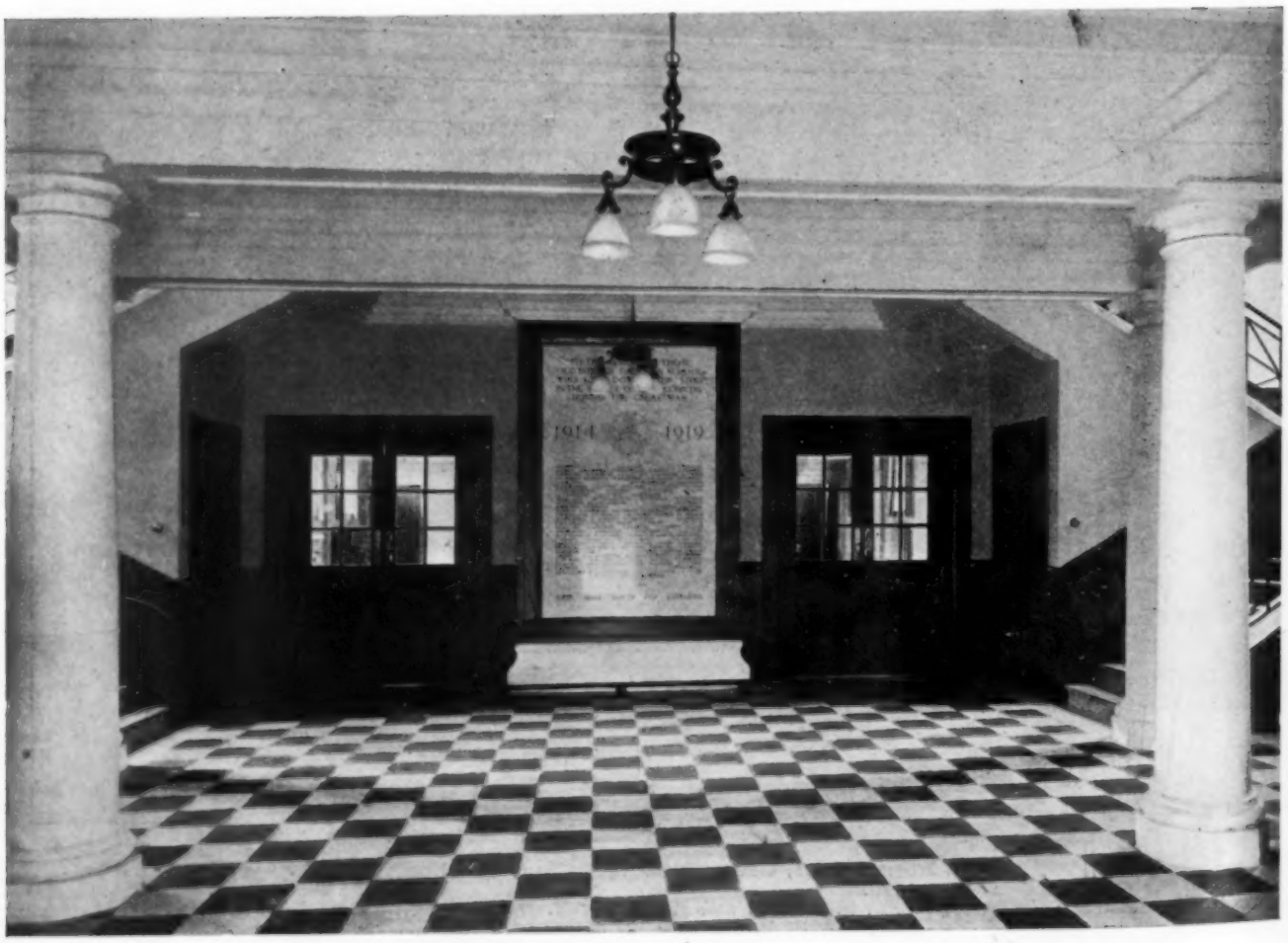
R.A. Exhibition, 1928.

**The Roan School, Greenwich: Main Entrance Doorway.**

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.



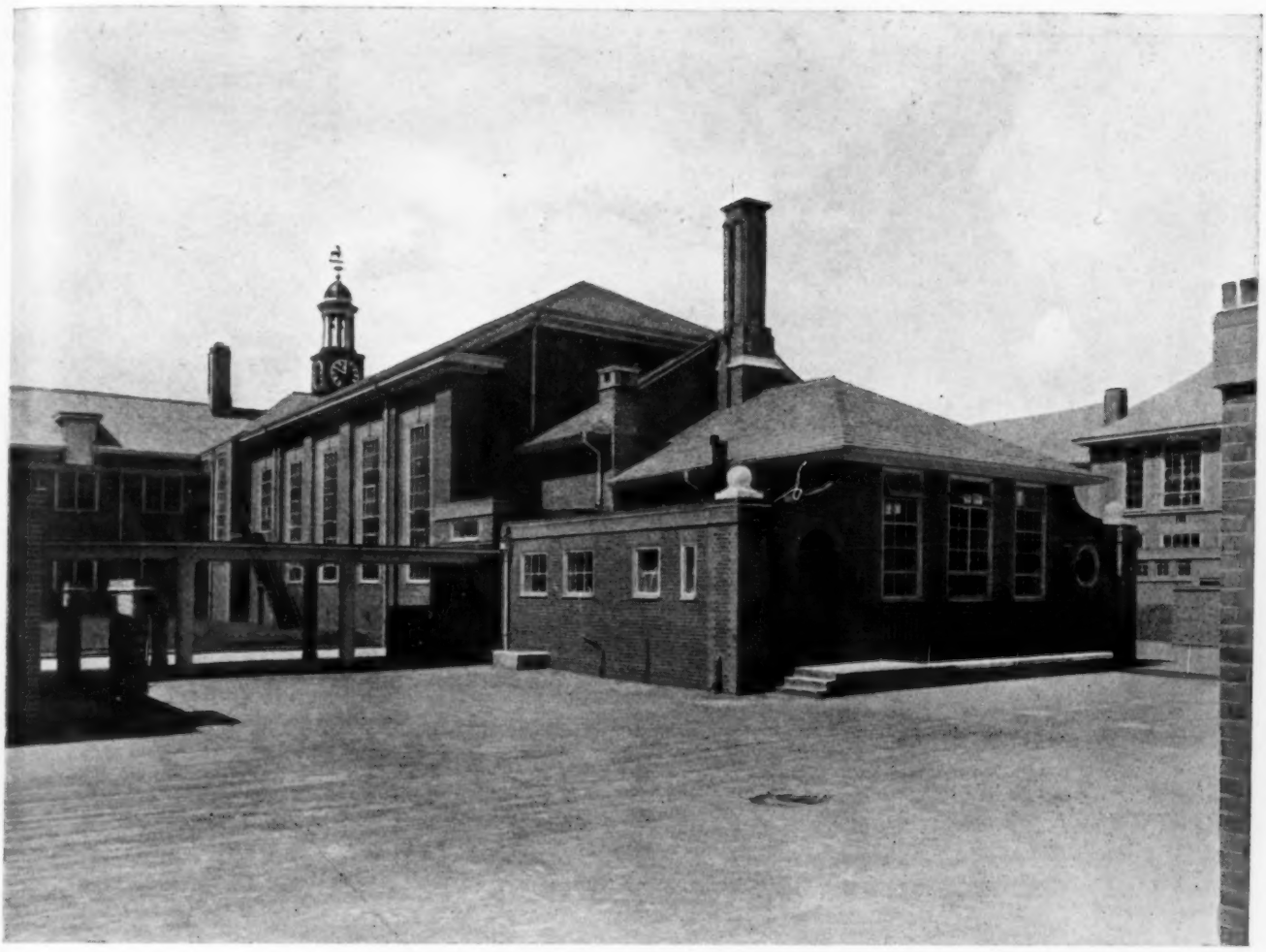
Assembly and Dining Hall.




Crush Hall, Looking towards Assembly Hall.

**The Roan School, Greenwich.**

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.

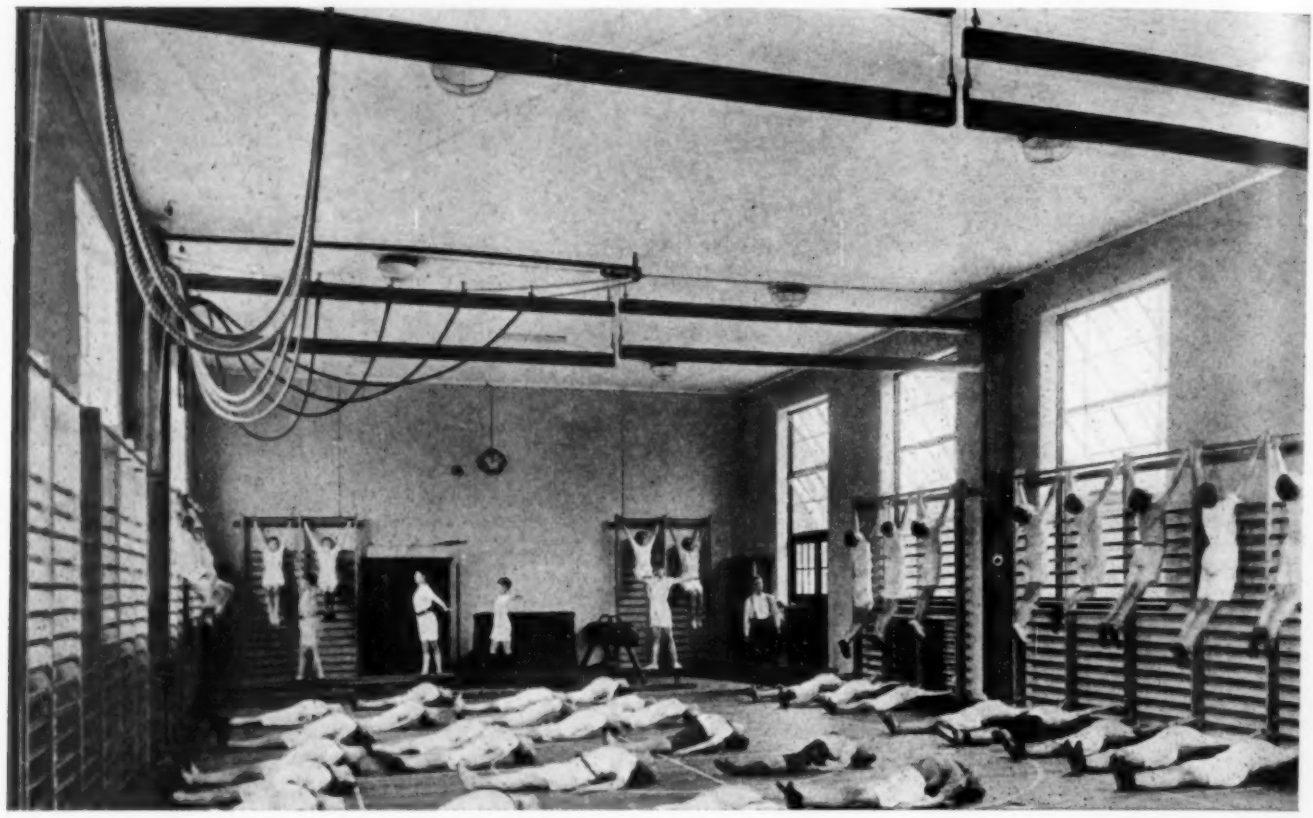


Back of Hall, Showing Kitchen Department.

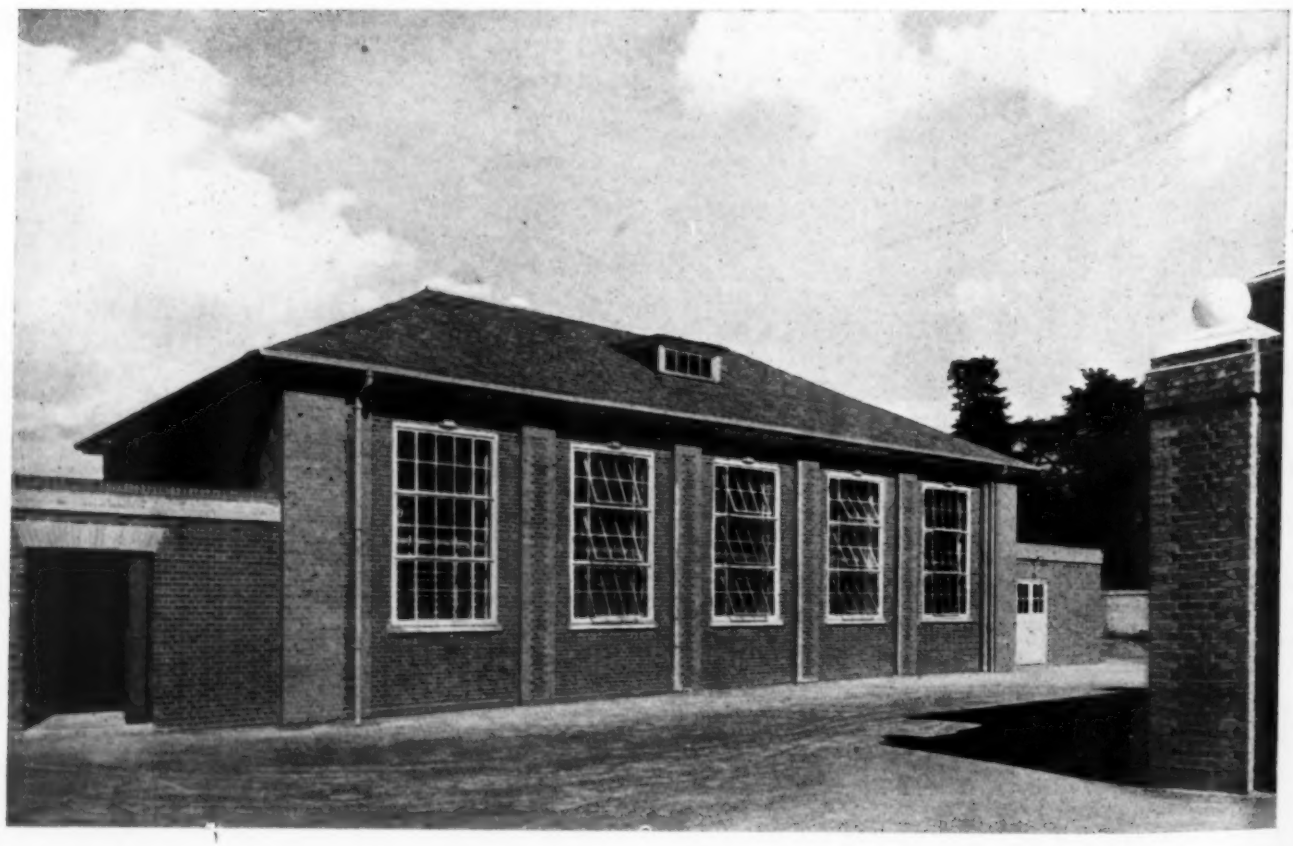
South-east Quadrangle, Looking towards Gymnasium.

**The Roan School, Greenwich.**

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.



Interior of Gymnasium.

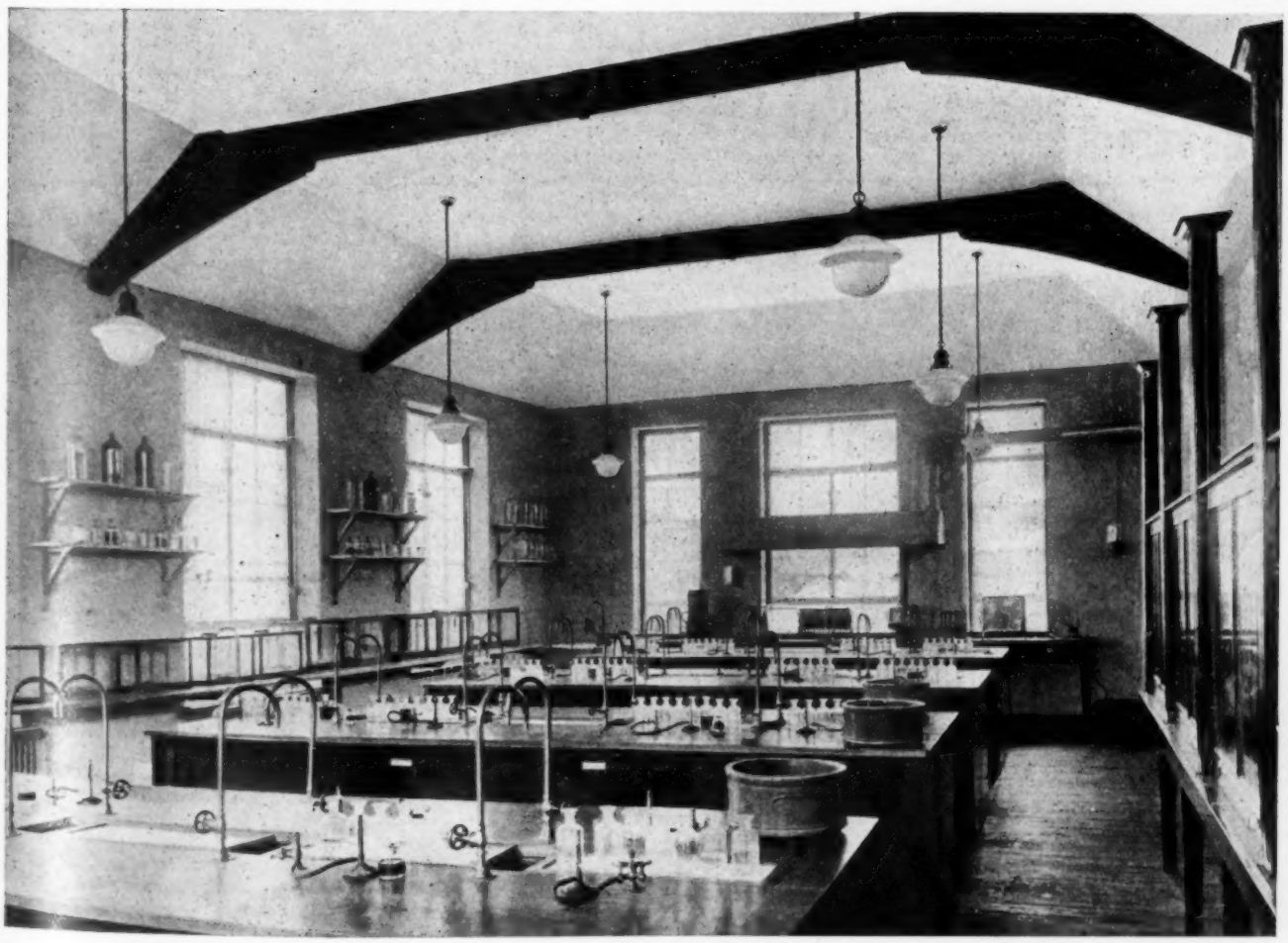


Exterior of Gymnasium.

**The Roan School, Greenwich.**

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.

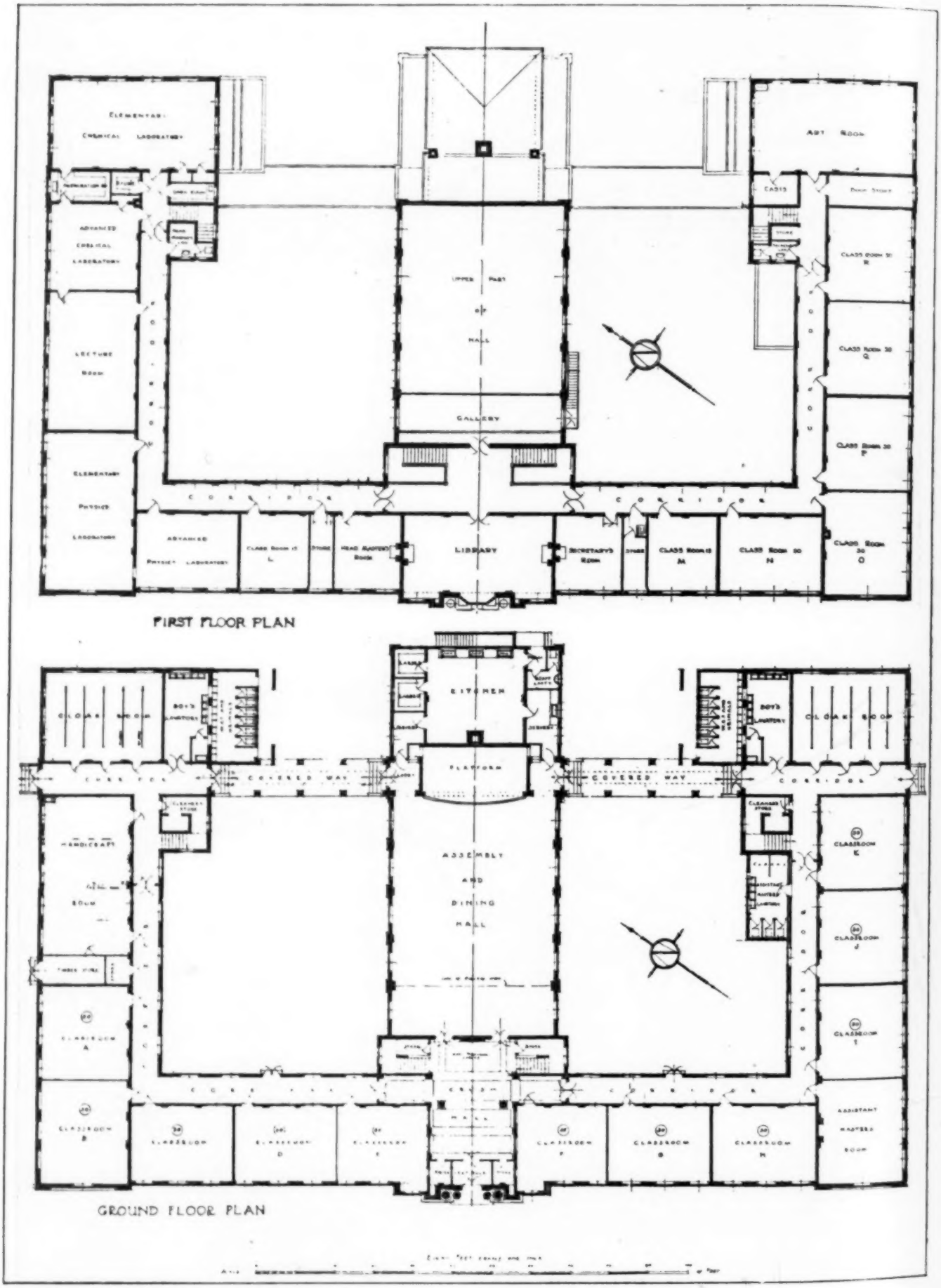
Library and Board Room.



Elementary Chemical Laboratory.

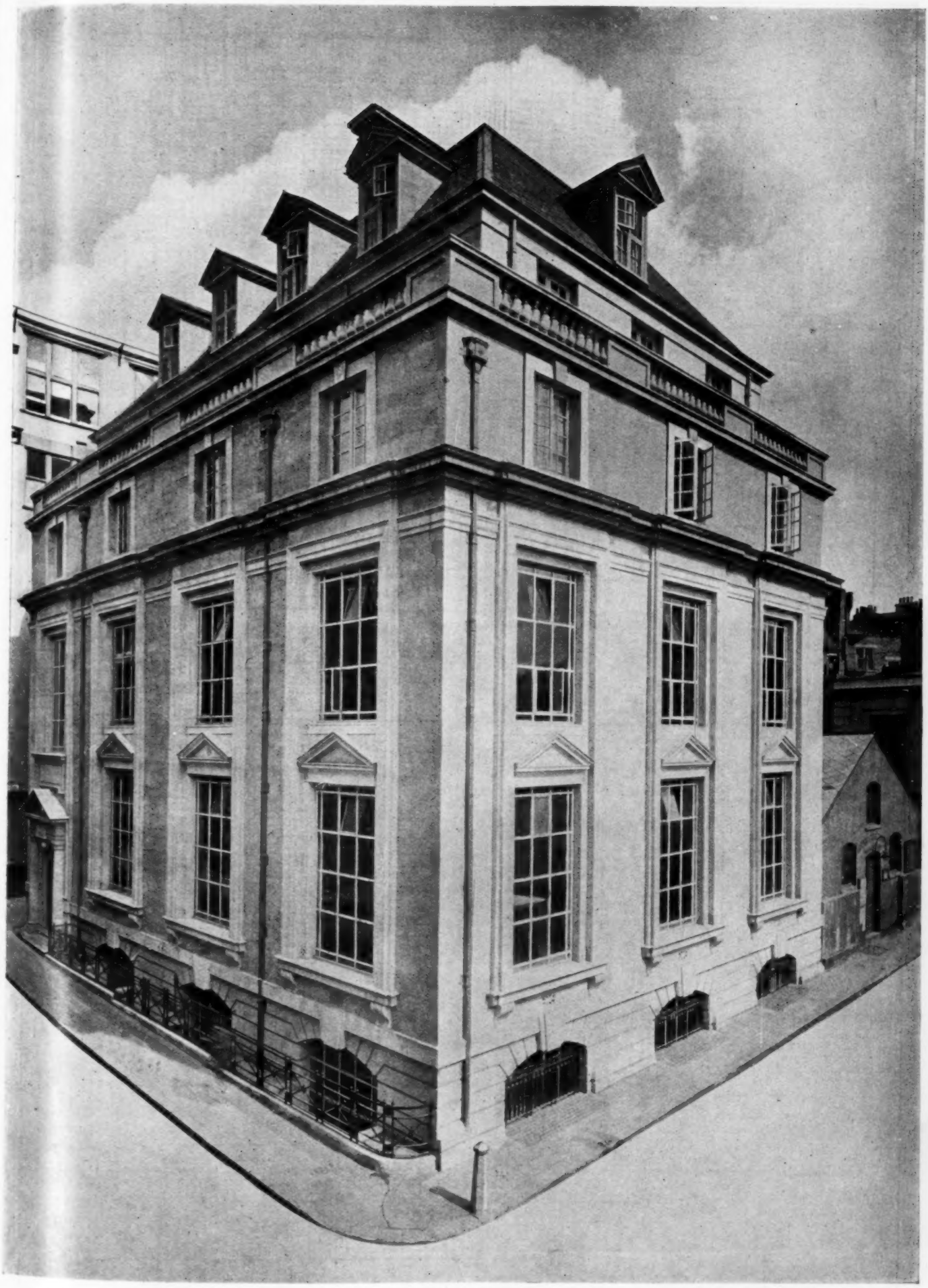
**The Roan School, Greenwich.**

Sir Banister Fletcher, F.S.A., F.R.I.B.A., and Mr. Percy B. Dannatt, F.R.I.B.A., Joint Architects.



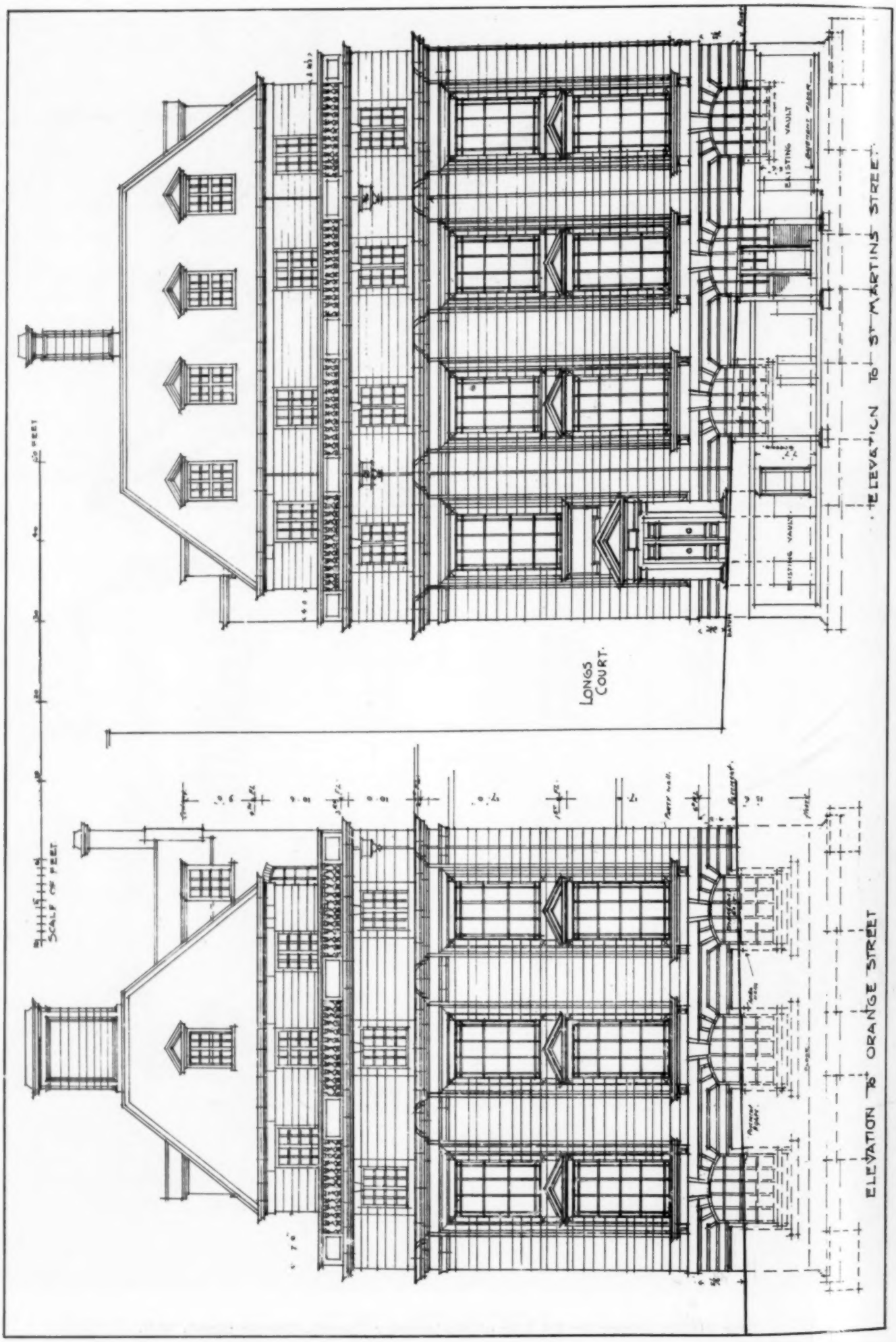

**The Roan School, Greenwich.**

SIR BANISTER FLETCHER, F.S.A., F.R.I.B.A., and MR. PERCY B. DANNATT, F.R.I.B.A., Joint Architects.



**New Public Library for the City of Westminster Council, Orange Street, W.C.**

Messrs. A. N. Prentice, Architects.



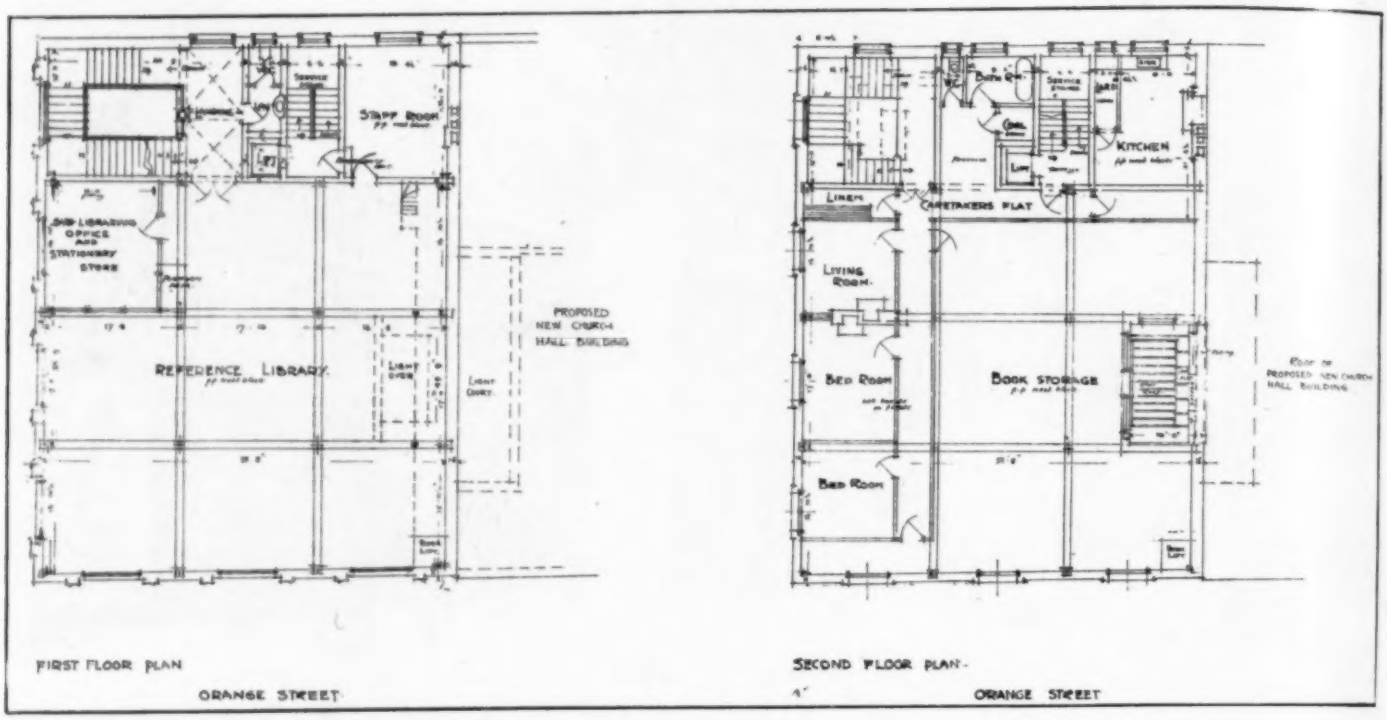

**New Public Library for the City of Westminster Council, Orange Street, W.C.**
Messrs. A. N. Prentice, Architects.

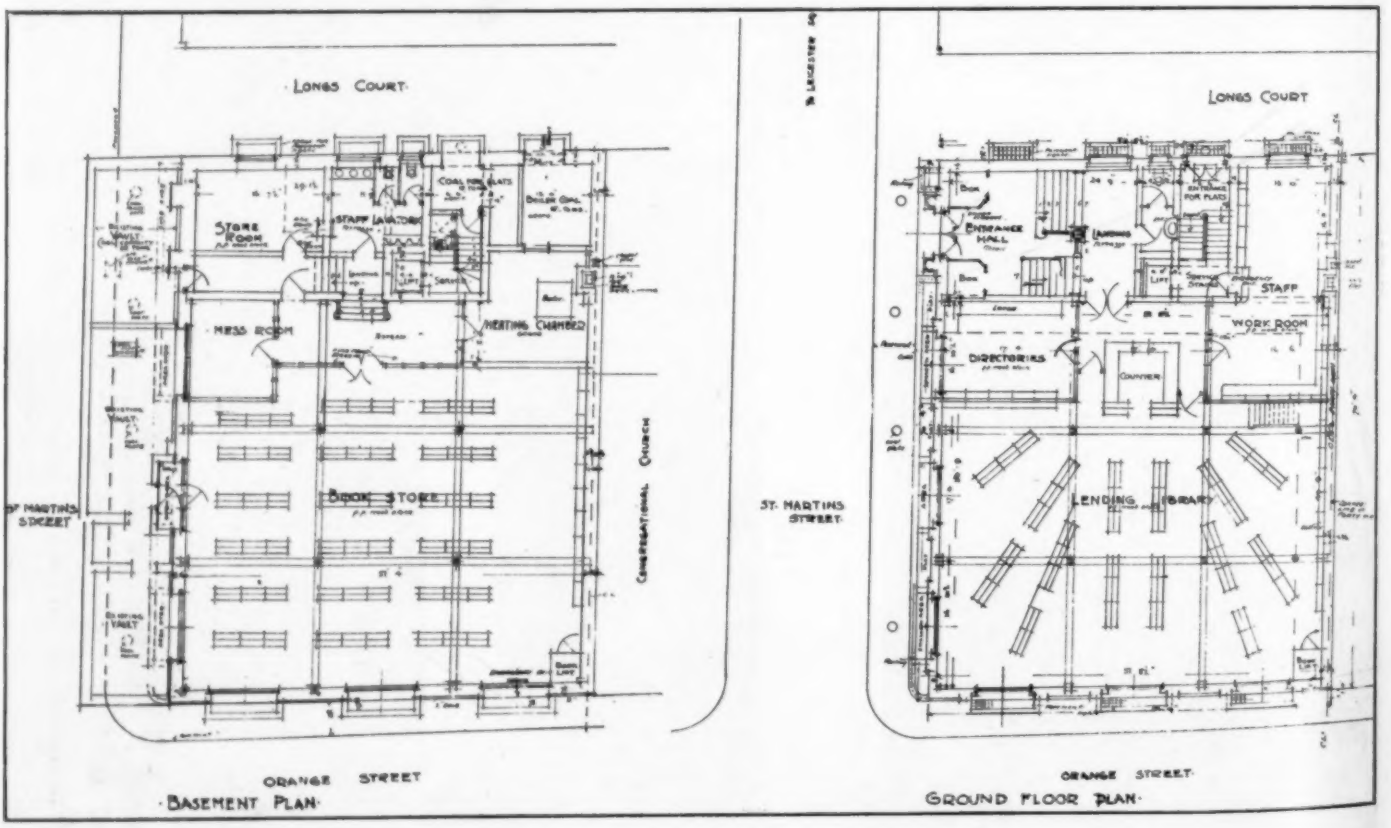
Lending Library.

Reference Library.

**New Public Library for the City of Westminster Council, Orange Street, W.C.**

Messrs. A. N. Prentice, Architects.




**New Public Library for the City of Westminster Council, Orange Street, W.C.**

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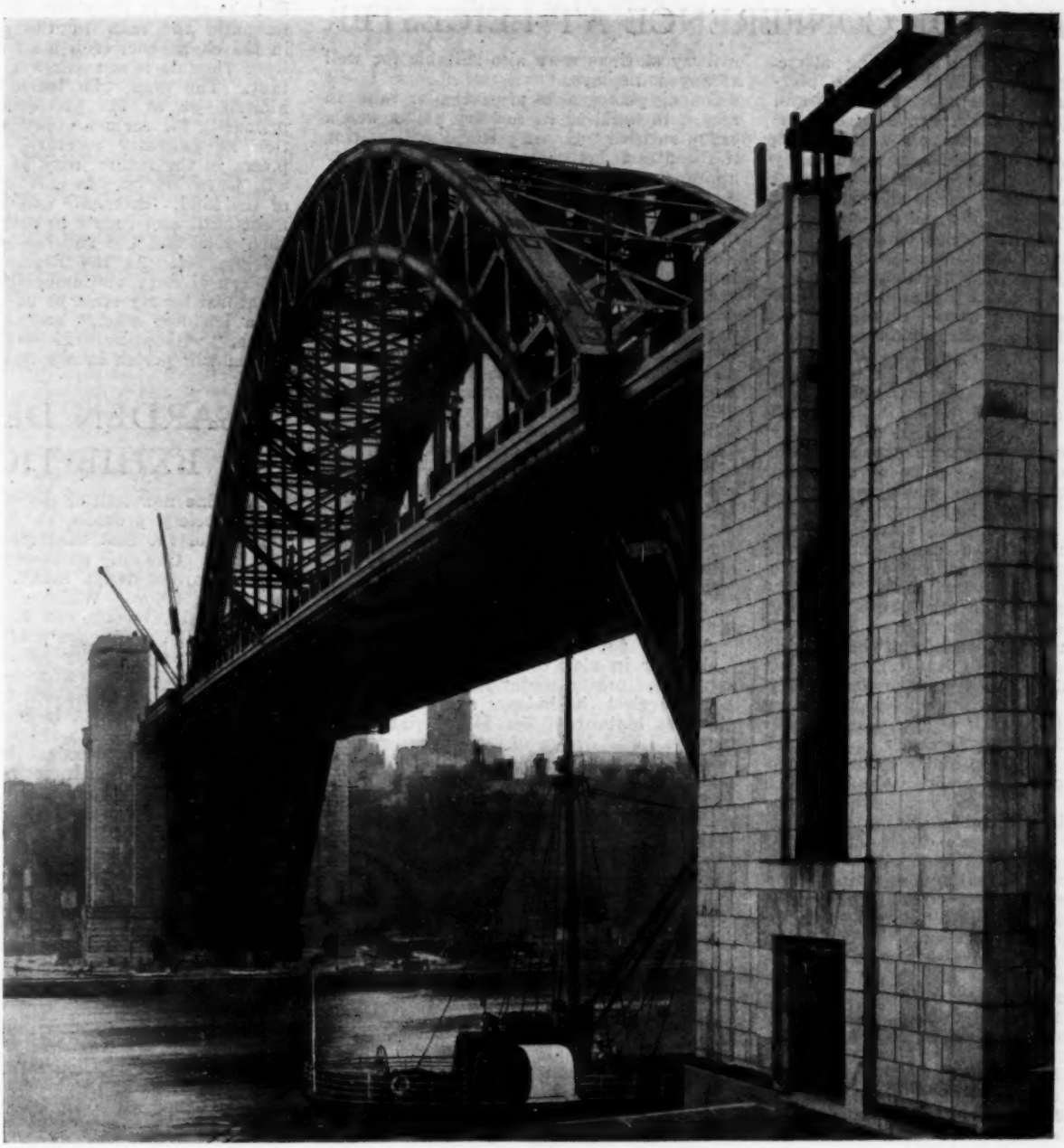

**The New High-Level Bridge, Newcastle-on-Tyne.**

Messrs. Mott, Hay & Anderson, Engineers. Mr. R. Burns Dick, F.R.I.B.A., Architect.

# COUNTRYSIDE" CONFERENCE AT LEICESTER

Not least among the interesting attractions connected with the National Conference on countryside preservation and kindred subjects, which aroused considerable thought at Leicester this week, and is now no doubt being heard about in many districts to which the delegates returned, was the exhibition. A varied and significant collection of photographs and other exhibits demonstrated various forms of spoliation of natural beauty and rural amenities, such as give rise to the work of the Council for the Preservation of Rural England and other specialist societies, whose representatives met for the first national conference of the kind. There was also in the exhibition a considerable proportion of constructive illustration. Particularly was this noticeable in that section of the exhibition which adorned the walls of the Hall of Leicester University College, where the sessions of the conference took place. The arrangement and mounting of the photographs and cuttings on uniform large grey cards with beautifully lettered and wittily devised captions, was itself a model of careful, orderly beauty. This collection, forming a national gallery of illustrations on "countryside" problems, is, in accordance with the unanimous wish of the Conference, to be available, under the custody of the Council for the Preservation of Rural England, for use in the future in all parts of the country for purposes of educating public opinion in the vital matters with which it deals. The University College at Leicester has offered to house the collection and to provide room for work in connection with its upkeep and enlargement. If the preservation and circulating of this admirably composed exhibition were to be the sole direct outcome of the conference the gathering would, even so, have served a useful purpose towards the end for which it met. The education of public opinion and the "development of habit and practice," even more than the application of legislative regulation and control, were declared by the Prime Minister, in his message of good wishes, to be the "real solution" to the problem of preserving the countryside, which he described as "the heart of England."

Many of the societies and associations represented at the conference showed exhibits demonstrating particular aspects of the problem—from the question of the threatened extinction of flora and fauna, to the more conspicuous of the disfigurements with which no one can fail to be familiar. The subject of "Litter," on which a committee is being formed, and other matters such as the abuse of advertisement, were fully and distressingly illustrated.

In the large hall the sections were grouped under titles: "The Building Problem," "The Roadside Problem," "The Garage Problem," "The Inn Problem." A selection of photographs of approaches to Leicester revealed frankly some of the blemishes which, if unchecked, render unattractive the outskirts of many a town which may otherwise possess features worthy of civic pride. The roadside problem was represented by examples of offending hoardings and enamel signs on roadside fields and hedgerows, and concealing features of beauty or interest. This subject was dealt with in one of the most significant of the resolutions passed by the conference. "This meeting of representative societies for the preservation of the countryside, while recognising the importance of good advertising to the commercial world, views with alarm the indiscriminate placing of enamel signs and other advertisements on shops, garages, and houses, barns, trees and on the roadside . . . and urges all advertisers to adopt some less objectionable methods such as will not disfigure the village and the countryside." A copy of the resolution was sent to the principal advertisers and advertising agents, and it was pointed out by one of the speakers that the naturally proper place for advertisements was the newspapers, while railway stations were also suitable for well arranged displays.

Among photographs of particular value in regard to building in country places was a group entitled "Country Housing," showing the contrast between appropriate and inappropriate treatment of similar modern materials and methods. Another showed "A Seemly Power House" in order that it might be seen that the application to modern needs of new expedients need not necessarily imply uglification of the landscape. The matter of electric power cables was discussed. The problem of the inn was treated particularly from the aspect of disfiguring lettering and advertisement, and the unsightly methods which in some cases have ousted, and in many cases exist beside, the older inn sign in clamorous insistence.

The "Garage Problem" is illustrated in the collection by some lamentable examples of crude shanties, plastered with a foreground of badly-placed petrol pumps, while the more hopeful side of the question is presented by views of two or three more thoughtfully designed and more suitably situated examples in actual being. It is nevertheless evident that the garage problem is not yet even in theory approaching a really satisfactory solution.

A step towards improvement may be looked for in view of the resolution of the conference urging motorists, so far as may be, to neglect the hideous and to patronise the less blatant of the filling stations or garages. The design of seemly garages and filling stations is necessarily still in an experimental stage, but that should be all the more encouraging for our younger architects, and the sooner the experimental stage is passed the sooner may we hope for the production of masterpieces in this branch of design.

The building of beautiful, harmonious, or even of decent, seemly and appropriate houses in rural surroundings is no longer in a stage of experiment. It is merely a matter of desire and intention. It is not actually even a matter of cost, for, at the present time, it is no more economical to build an eyesore than to produce a well-proportioned, simple, seemly home. In this matter of house-building in rural surroundings it was reiterated from time to time by various speakers at the conference that it is not the object of the Council for the Preservation of Rural England, or other societies, to hamper the building of houses in the country, or to discourage the use of the country by the town-dweller. On the contrary. The reassurance on this point might by now appear to be superfluous, yet, apparently, there is still a certain readiness in some quarters to misapprehend or misinterpret the comments and aspirations of the enthusiast when he speaks of the "bungalow" in terms of reproach. The multiplication of new homes of all sizes in "the heart of England," is not in itself deplorable. What is deplorable is the lack of taste, thought and foresight in design and in the placing of buildings so as to disfigure the countryside and deprive it of its qualities of harmony and order.

"Something must be done about it," was Mr. Macdonald's message. "A real solution lies only in the education of public opinion and in the development of habit and practice," wrote Mr. Baldwin. It is no party, no class, no personal matter. It is a national one. The conference passed a resolution urging the Government "to stimulate the employment by local authorities of the powers already conferred upon them by Parliament for the preservation of scenic amenity in town and country," and another concerning the adoption and enforcement of the Advertisements Regulation Act of 1925. Londoners and estate agents and solicitors were urged in another "to consider the desirability of including in leases or tenancies of cottages or farmhouses, a covenant restricting the erection of signs unless such signs are first approved by the owner." But the man in the street, the man on the footpath, the man in the car, the man in the charabanc, each must do their part. Even ridicule is sometimes a curative irritant. The man who learns to laugh at himself or at his productions, held up primarily for serious study in the exhibition at Leicester recently, and at other places in the future, may be the man who will learn ere long to care for the beauty of the land. Economic and social development must come, must be prepared for, and then welcomed, but natural beauty must be safeguarded. As the Regius Professor of Modern History at Cambridge pointed out, "natural beauty must be preserved, if only as a business asset," and, on the higher plane, "without natural beauty the English nation will perish in a spiritual sense."

# GARDEN DESIGN EXHIBITION

The fine new hall of the Royal Horticultural Society provides an effective setting for one of the best exhibitions the Society has held. One only wonders why an exhibition of garden design such as this has not been seen before. Whether it has a great educational value one can hardly say. The tendency of the average public produced by a bewildering variety of garden design leads in the direction of too much effort and fuss, and the endeavour to get too much into a small space. A large number of the small modern gardens are examples of too much detail and overdone effects. There is certainly so much to be seen in an exhibition of this kind that it is not easy to assimilate the feast of good things provided. This is not an exhibition to be missed, and as any sort of adequate notice of the beautiful things to be seen is quite impossible, we hope our readers will go and make their own reviews and comments.

The central part of the new hall is admirably laid out with formal beds, in which are displayed many examples of the sculptor's art. In the various side recesses are hung exhibits which will prove of the greatest interest to architects, such as the fine model of a garden for a modern house, the house and garden buildings being by Messrs. Easton and Robertson, and the rest designed and made by McDonnell Winder. The severe square outlines of the buildings are relieved by projecting stuff awnings, and the breadth and simplicity of effect are very pleasing. A large number of photographs and drawings of gardens include many fine illustrations of Versailles, Fontainebleau Chantilly, Blois, etc. We suppose there has never been before such a comprehensive exhibition of garden design typical of much of the best from all over the world. Our English railway stations may take some hints from the large number of illustrations of gardens about the Swedish State Railway Stations The American section seems very inadequate in quantity to give any idea of the many fine gardens laid out there in recent years.

The historical section is of immense interest, covering a great variety of subjects and illustrated by old prints, books, drawings and photographs.

The exhibition owes much to the skilful arrangement and distribution of the sculpture, in such a way as to give it the advantage of a setting amongst grass and flowers. Mr. Reynolds-Stephens has so arranged all the sculpture exhibits that they have a distinction and interest which is usually lacking in the old hall.

There is a large display of garden figures and ornaments by the Bromsgrove Guild, and J. P. White and Sons. Many of the little figures are excellent in their pose and modelling. Other exhibitors with numerous pieces are Wakeley Bros. and Co., Pulham and Son, Sanders and Co., The Empire Stone Co., and W. Wood and Son. Some good garden woodwork shows arches, pavilions and seats.

# SCIENCE APPLIED TO AMERICAN ARCHITECTURE

In the course of a lecture on this subject read to the American Institute of Quantity Surveyors, Chicago, Mr. G. Szmak said that the evolution of the construction industry was so rapid that they were compelled now and then to survey conditions, lest they continued to follow methods that were suitable yesterday but which did not meet the problems to-day. Under such conditions the competent architect began to wonder why he had to compete with services that were inferior to his own in quantity, quality and price. Architects who had built up firm and wide reputations for competency did not, as a rule, have to meet unfair competition. The question arose, "Should the architect who is competent to produce a good piece of art but whose reputation is not yet established, be compelled to suffer the consequences of degenerated practices? Was it possible to prevent conditions that are detrimental to honest, efficient and truly economical architectural services?"

The answer was, that no profession was fully matured or able to reach its highest state of efficiency without having partly become a science. The majority must apply science to their profession in order to advance and achieve the position of the minority who did not have to meet unfair competition. The architect who knew that he could and did give economical service to the client placed himself beyond the reach of unfair competition.

The construction survey would do more good than anything else in educating the client. Plans and specifications which were not properly made or written could not be properly surveyed or built from, and the client would be sure to find that out when a surveyor was on the job from the preliminaries to the finish. Every architect owed it to himself to use methods which would show every possible evidence of the right intent and economy of his service. The survey was both an aid to and proof of it. Only thus would the public learn the difference between competent and incompetent service. There were now in America a number of trade and professional organisations which were fighting against "incomplete" drawings and "unspecific" specifications. Construction surveying was an entirely new profession, and it had not yet occurred to the existing professions or trades to utilise surveys as a means of bettering conditions. The surveyor made it his business to prevent insufficiency of information and misinterpretation. That means of prevention was a safeguard to the architect as well as the client and builder. Co-operation with the surveyor would bring about quick and effective results without cost or disruption between the various branches of the industry. The surveyor did not propose to clean up the industry. He did, however, provide the means whereby the industry and the public would be encouraged to play fair.

In the present practice of architecture the architect had come more and more in contact with the engineering and business phases of his profession in a degree unknown to the architect of years ago. The architect's business knowledge was being made more complete as it became necessary for him to carry on transactions with and for his client. His contact with the management branch of engineering, which was the builder, was of long standing. More recently the architect had begun a closer co-operation with the structural and mechanical designing divisions of engineering. The next step in the evolution of his profession was to secure the co-operation of the first essential division of engineering knowledge, the surveying of construction.

Architecture alone was art or negative knowledge, but through co-ordination with each division of engineering, architecture became economically productive because the negative and positive forces communed in absolute harmony, art having become mated with science. That fusion of architecture and engineering, through the division of surveying, would provide the architect his most needed helpmate, the construction surveyor. Construction surveying was the science of measurement, tabulation and analysis by uniform units applied to the quantity and quality of material and workmanship in the physical members of a civil structure. There was no particular benefit which would not reflect on the client, architect and builder. All services were interdependent, and a loss to one was a loss to all. Surveying, among other benefits, encouraged honesty by exposing the facts otherwise unknown to buyer and seller. Every architect was a buyer and seller of material and service. It created fairness in competition between architects and contractors by positively showing that quantity and quality, instead of price, were the basis of fair competition. Gambling and special privileges were eliminated and construction contracting became a direct buying and selling transaction. It provided accurate preliminary records on the relative values of material and workmanship essential for economical design, by analysis. It produced future reference records which were permanently available for arbitration, investigation and valuation purposes. It interpreted plans and specifications by tabulation into the everyday language of buyer and seller, and lastly, simplified design, survey and management by systematic classification of the actual requirements.

There were many reasons why architects should investigate, recommend and use professional surveys. Contractors and sub-contractors often prepared sheaves of survey sheets covering the material and workmanship to be furnished, but one could be sure those surveys were rough. They were done without direct remuneration and at best were padded on the safe side. On a recent project sub-contractors submitted estimates that varied more than 100 per cent. between one low and several high bids. Upon rechecking, it was found that the low bid was correct in every respect — in quantity, quality and value. Architects knew and practised that method of revision and could confirm the economy of such procedure well enough. Why not, asked the lecturer, have a professional survey to begin with and eliminate the wasted efforts of the architect, contractor and sub-contractors used in reducing the items to their final values? This would save the unnecessary duplicated expense to all parties.

The lack of initiative on the part of the architect was to be wondered at because most architects were familiar with the positive benefits of surveys and readily admitted them. Was it because both buyer and seller naturally preferred to play the game "catch as catch can?" Procrastination on the part of the architect would bring him closer and closer to unfair competition. When that condition became unbearable, possibly only then, would he do the wise thing and stop thinking that it was possible to gain advantages without reaping the inevitable disadvantage of an unfair transaction. While some of the more competent architects were much too busily engaged in the mass production of their art, degenerated practices were eating into the vitals of their business through lack of science applied to art. To be benefited one had to benefit others. To the extent that the architect would apply the positive knowledge of engineering management, design and survey to his art, in that degree architecture would become a science and the architect benefit the client, industry and himself.

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**Bridgewater Square.**

The Lord Mayor, who was accompanied by the Lady Mayoress, formally opened on Monday the small garden in the centre of Bridgewater-square, Cripplegate, as an open space. The square is all that remains of the once famous gardens of Bridgewater House. The mansion, which fronted the Barbican, was the town residence of the Egertons, Earls and Dukes of Bridgewater.

# MEETINGS

FRIDAY, *October* 19.

*Trades' Training Schools.* Annual Prize Distribution by the Right Hon. Sir Thomas Inskip. At Carpenters' Hall, London Wall, E.C. 8 p.m.

*Institution of Mechanical Engineers.* Presidential Address by Mr. R. W. Allen. 6 p.m.

FRIDAY-SATURDAY, *October* 19 *and* 20.

*Institution of Municipal and County Engineers.* Southern District Meeting. At Portsmouth. 11.30 a.m.

WEDNESDAY, *October* 24.

*L.C.C. Central School of Arts and Crafts.* Sir Banister Fletcher, F.R.I.B.A., on "Italian Renaissance: Early Renaissance in North Italy." 6 p.m.

THURSDAY, *October* 25.

*Chadwick Public Lectures.* Mr. Torben Grut on "Public Health Buildings and Recent Improvements in Town Development in Sweden." At 9, Conduit-street, W.1. 5 p.m.

*Incorporated Institute of British Decorators.* Trade Demonstrations of Painting. At the Painters' Hall. 8 p.m.

*Society of Antiquaries.* Ordinary Meeting. 8.30 p.m.

*Institution of Electrical Engineers.* Inaugural Address by Lt.-Col. K. Edgcumbe, President. 6 p.m.

THURSDAY, *October* 25.

*University of London.* Miss E. Jeffries Davis on "Historical Factors of the Problem of London Traffic." At Gower-street, W.C.1. 5.30 p.m.

FRIDAY, *October* 26.

*Glasgow Architectural Craftsmen's Society.* Mr. S. Karr on "Aspects of Cement and its Manufacture." At the Royal Technical College. 7.45 p.m.

*The Royal Metal Trades' Pension and Benevolent Society.* Annual Festival. At Hotel Metropole, W.C. 2.

# EARLY RENAISSANCE ARCHITECTURE OF FLORENCE

Sir Banister Fletcher, F.S.A., F.R.I.B.A., on Wednesday last gave a lecture at the Central School of Arts and Crafts on "Florence and its Early Renaissance Churches and Palaces." He pointed out the geographical position of Florence, the "City of the Lily," where early in the fifteenth century Renaissance art first took root. Stimulated under the rule of the art-loving Medici, and the growth of art guilds in Florence, and fostered by a keen municipal spirit, this re-birth of Classic forms burst into flower with many new and pleasing combinations of those forms. Beautiful marble from the famous quarries of Carrara had great influence in producing the refinement of the style, and the brilliant climate resulted in the rugged façades and deeply frowning cornices of the palaces. The lecturer then gave a comparative analysis of the characteristic features, and described the churches and palaces of Brunelleschi, Alberti, and their early followers, with lantern views, and showed how symmetry of classic origin was combined with variety and picturesqueness in detail.

The lecture on Wednesday, October 24, will be on the "Early Renaissance Architecture in North Italy," beginning at 6 o'clock.

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**Mr. W. H. Seth-Smith's Estate.**

Mr. William Howard Seth-Smith, F.R.I.B.A. (76), of "Windswept," Reigate, Surrey, architect, and 46, Lincoln's Inn Fields, W.C., left £19,012.

# SOCIETIES AND INSTITUTIONS

## SOUTH WALES INSTITUTE OF ARCHITECTS.

An exhibition of the Testimonies of Study for the R.I.B.A. Examinations was held on October 11 in the studios of the Welsh School of Architecture at the Technical College, Cardiff, and at the same time an interesting collection of architectural photographs by Mr. Cyril Ellis, of London, was exhibited The exhibition, which was arranged jointly by the South Wales Institute of Architects (Cardiff Branch) and the Welsh School of Architecture, was excellently attended by members of the architectural profession and others, both the drawings and the photographs arousing considerable interst.

## INSTITUTE OF BUILDERS' HALF-YEARLY MEETING.

### Visit to Forest Products Research Laboratory.

The half-yearly meeting of the Institute of Builders, on October 17, took the form of a visit to the Forest Products Research Laboratory (Department of Scientific and Industrial Research), Princes Risborough, Bucks. (This building was illustrated in our issue for October 5.) Mr. H. T. Holloway (President) and members of the Council were supported by about 100 other members of the Institute, representative of the country. Among those present were: Messrs. W. Matthews (Stockport), J. H. Barker (Hitchin), L. V. Pillatt (Nottingham), W. E. Tyson (Liverpool), W. Thorpe (Manchester), H. Willis (Brighton), A. H. Adamson (London), W. J. Brooker (Eastbourne), C. I. Epps (Ashford), W. H. Jones (Coventry), A. E. Jenkins (Newport), S. Ellis (Guildford), G. R. Holland (London), W. J. Lucas, J.P. (Prescot), S. Guy Sapcote (Birmingham), and W. T. Plume. The party, which travelled to and from Princes Risborough by special train, was received at the Research Laboratory by the Director, Mr. Ralph S. Pearson, C.I.E., F.L.S., and conducted in groups by members of his staff in a tour of the various sections of the work, the enjoyment and the value of the visit being much enhanced by the admirable arrangements made to facilitate a thorough insight into the direction and purposes of the laboratory's researches.

The post-war threat of a world shortage of "softwood" building timbers drew attention to the need for conserving standing timber and reducing waste, and led to the establishment of this Research Laboratory, recently formally opened by the Rt. Hon. the Earl of Balfour, K.G., O.M., F.R.S. The primary purpose of the laboratory is to promote economical growth, specification and employment of timber. Its prospective value in these directions is great, for this country spends annually about fifty million pounds upon imported timber. Where, too, the afforestation enterprise of the State and of the private owner is towards production of a part of this country's timber requirements, scientifically ascertained knowledge upon the rate of growth, the effect of this rate upon the strength of timber, and the right stage of growth at which the log can be converted with a minimum of waste, is of the utmost practical value.

Broadly speaking, a research falls into three stages—laboratory tests, large scale tests, and tests on a commercial scale to prove the economic soundness of the results. The Princes Risborough laboratory recognises the importance of close co-operation between science and practice, and its organisation is designed accordingly.

The laboratory, which is divided into two main sections, namely:—

A. Administrative and general services,

B. Technical Sections,

is sub-divided in its Technical Sections as follows: (i.) Wood Technology, (ii.) Seasoning, (iii.) Timber Physics, (iv.) Timber Mechanics, (v.) Wood Preservation, (vi.) Wood Working, (vii.) Pathology, (viii.) Chemistry of Wood, (ix.) Utilisation. Workers in certain sections are housed at Oxford, London and St. Andrews.

A piece of timber exhibits numerous variables which depend on the structure of the species and on varying factors affecting the growth of the tree. Therefore, to ascertain the qualities of a specific timber, extensive investigations including, as a rule, investigations on specimens of commercial sizes, are necessary. Whether the timber is to undergo a complete investigation or is only to be investigated for some limited purpose, examination by the wood technologist is the first step. To assist in the identification and comparison of species, there are available at the Imperial Forestry Institute some three thousand identified samples of woods, and from these the Institute and the Laboratory have prepared type slides showing the minute structure. The immediate value of this work is illustrated by frequent demands for the identification of unknown or doubtful samples. These type slides also greatly assist the classification of a new species for its probable uses or in suggesting a substitute for some timber that is becoming scarce; and they save much time, labour and expense. A critical study of structure is also necessary for the investigations of the timber physicist. He needs the results of this study before he can investigate the factors influencing the movement of moisture and heat within the timber, which he requires to know for the solution of seasoning problems, or before examining the hygroscopic power of wood with reference to shrinking and swelling.

The next step in the general study of a particular timber is the examination of its aptitude for seasoning and the best means of achieving a satisfactory result. For seasoning under natural conditions this will affect the manner of piling; for seasoning under artificial conditions it will influence the method of drying in the kiln. Bad methods of seasoning, it is pointed out, are responsible for a large wastage of timber. The results obtained by the investigations in wood structure and seasoning will indicate lines of work in timber mechanics, wood preservation and wood working. In the Section of Timber Mechanics the first step is to make mechanical tests on small specimens free from defects in order to determine the inherent fibre strength of the species. The results are used in comparing one species with another, in determining the influence of defects when testing large-sized timbers, and in computing the influence of rate of growth, density and moisture content.

Work has been begun on the testing of structural timbers, in which account is taken of the influence of defects and the results of which are used in providing tables of safe working stresses for the use of architects and builders. The programme of work in wood preservation comprises the study of the natural durability of different species of timber, the efficacy of different antiseptics, and the various methods of applying preservatives. One of its chief objects is to cheapen the process and thus widen its use.

In the effective marketing and utilisation of a timber, something more is required than an examination of the physical and mechanical properties. It is necessary to say how a given timber will behave under the tool, and to determine what set of the saw or knife or what machine speed will give the best results. Investigations are proceeding to this end. The treatment of dry rot depends largely on the particular circumstances of attack attending each individual case, and in the less simple cases expert opinion is usually necessary. But given an understanding of the conditions inviting decay, attacks of dry rot can be materially reduced by care in construction and by simple precautions. The study of the conditions and development of the organisms concerned, and the means of control are being continued.

Considerable success has attended investigations on the Lyctus beetles. A demonstration has been given of a means of ridding timber of this pest by a steam sterilisation treatment in the kiln. Important progress has been made in the study of the life-history of this pest. The laboratory has also been able to establish a definite relationship between the size of pores in different species of hard woods and liability to attack. This makes it possible to say that certain timbers can be attacked while others will be immune.

The Section of Utilisation is the link with the industry. The range of inquiries coming to this Section is very wide, covering almost all aspects of utilisation, from the conversion of the log in the saw-mill to its numberless uses, including the use of waste material. The success of this Section in the objects set out above has been most encouraging.

# OBITUARY.

### Sir Frank Dicksee, P.R.A.

We regret to record the death of Sir Frank Dicksee, P.R.A., in a London nursing home. We shall publish an obituary notice in our next issue.

### Frederick Pearce.

We regret to record the death of Mr. Frederick Pearce, 63, borough surveyor and engineer, Twickenham. He was a recognised town-planning expert in the Thames Valley, and had been at Twickenham about 30 years. A distinguished engineer, he also had great ability in presenting a case to committee. He was a native of Somerset.

### L. A. Francis, F.S.I.

We regret to anounce the death, at the age of 82, of Mr. Leon A. Francis, F.S.I., of Vernon House, Sicilian-avenue, W.C.1. Mr. Francis served his articles with the late W. F. Hooper, architect and surveyor, of Craven-street, Strand. He was elected a Fellow of the Surveyors' Institution in 1890, and was in practice as a quantity surveyor at John-street, Adelphi, W.C., up to 1919, when he went into partnership with his two sons. He was engaged as surveyor on many large works, including those designed by the asylum architects, Messrs. G. T. Hine and H. Carter Pegg. He also had a considerable practice in Yorkshire and adjacent counties, chiefly on works designed by the late Charles Hadfield, F.R.I.B.A. Mr. Francis was interested in Freemasonry, in several branches of which order he obtained provincial rank.

### William Stewart Greene, F.A.I.

We regret to record the death, on October 8, in a nursing home at Hull, of Mr. William Stewart Greene, F.A.I., managing director of Messrs. Green and Abbott, Ltd., the well-known firm of builders, decorators, etc. Mr. Greene, who held the Order of the Redeemer, conferred upon him by H.H. the late King of Greece, was a Freeman of the City of London, a member of the Court of the Painter Stainers' Company, and held the office of Renter Warden of this Company in their year 1926-1927. He was also past-president of the Incorporated Institute of British Decorators, and vice-chairman of the Joint Council of Employers and Operatives for training wounded Soldiers and Sailors for the Building Trade. He was also vice-president of the Furnishing Chamber of Trade, a member of the committee of the Royal Society of Arts for the furniture section of industrial design, also the section of architectural decorations, and a member of the committee of the Trades Training School, Gt. Tichfield-street.

The funeral service was held at St. James's, Garlickhithe, on Saturday last, cremation following at the Golders Green Crematorium, among those present at the service being Lt.-Col. J. G. Oakley and Miss Ethel L. Cocke (directors of Messrs. Green and Abbott), Mr. A. B. Yeates, F.R.I.B.A., Mr. Octavius Satchell, of the Painters' Company, and many other personal and business friends

# ARCHITECTS' & BUILDERS' INQUIRY BUREAU

*We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

*May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!*—ED.

### Plastering on Metal Lathing.

SIR,—Would some experienced reader give details of the safest material and gauging for plastering upon metal lathing? B. G.

### Electric Heating.

SIR,—I should very much like to know at what price per unit for electric power, heating by electricity compares favourably with gas heating for similar results.

FORWARD.

### Hedges.

SIR,—Can any of your readers inform me what is the cheapest form of hedge, and its approximate cost per yard run, and also the quickest growing form of hedge, and its cost per yard run? HOUSEHOLDER.

### Damp Walls.

SIR,—Mr. Walker's sketch of the foot of a cavity wall (October 5) is an illustration of one of the difficulties of cavity construction. I find it a continual difficulty to make men particular about keeping wall ties and cavity clean and free of mortar droppings. There are many precautions that are advised, such as hanging battens over the cavity, or haybands, during the course of the work; but we know very well that as soon as the architect goes out of the gate these are laid aside, just because they are an undoubted nuisance to the bricklayer when the next course of ties is laid. I should be extremely interested to know what any of your readers advise as a solution of this difficulty.

ARCHITECT.

### Re-coating Tarpaulins.

SIR,—Can you please tell us of a suitable preparation for re-coating tarpaulins (roof sheets)? Is there anything we could prepare ourselves? J. O.

### Contract Question

[REPLY TO "B. C. F.," OCTOBER 5.]

SIR,—The querist has used the R.I.B.A. (1909) clause for p.c. sums, and objects to the architect abstracting a sum from the contract and paying the merchant direct. His questions may be summarised as follows:—(1) Has the architect this right under this contract? (2) Must the amounts representing (*a*) discount for cash, (*b*) cost of fixing, and (*c*) contractor's profit (all of which amounts are included in the contract and none of which is payable to the merchant) or any of them be deducted with the sum payable to the merchant? (3) If so, to whom are these amounts to be paid?

My practice is to recommend the addition of a clause definitely reserving to the architect the right to pay the merchant direct if it is meditated doing so, and at the same time saying what is to be done with any profit or other addition; this appears to be provided for in the new Model Form of Contract, but without some such clause I doubt whether the architect has that right. The application of the 1909 Form in this regard has been the subject of controversy and a résumé of decisions with the opinion of your legal correspondent would be appreciated. T. H. R.

### Square Mile and Mile Square.

SIR,—Is there any difference between a square mile of ground and a mile square of ground? J. HALEY.

### Rainwater Tank Apparatus.

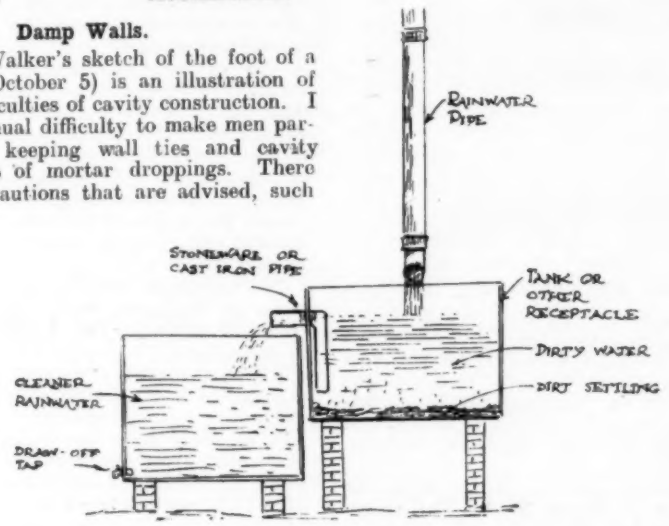
[REPLIES TO MR. H. LANE, OCTOBER 12.]

SIR,—All your correspondent need do is to interpose a smaller filtering tank between the inlet and the main storage. This should be filled with graded gravel or other suitable filtering media, which will purify the rainwater sufficiently.

STORAGE.

SIR,—Perhaps the sketch below may be of some assistance in solving the difficulty.

BREWSUR.




### Cube of Small House.

[REPLY TO "PROFIT AND LOSS," OCTOBER 5.]

SIR,—The cube for a modern thatched cottage, including profit and overhead charges, exclusive of architect's drawings and supervision, is one shilling and sixpence per foot cube. A small builder's overhead charges should not be more than five per cent. and his profit on a house ten per cent. If the carrying out of the work is organised in a proper manner the above result can easily be obtained. T. E. CULL.

### Fungi in Woodwork.

[REPLIES TO "J. D.," OCTOBER 12.]

SIR,—The condition of the woodwork as described by J. D., in his cellar, kitchen, and the rooms above, can be only that due to the ramifications of the deadly *merulius lachrymans*. The shrivelling up (usually across the grain of the wood) and the cracking leave but little room for doubt that this fungus, most difficult to eradicate and more difficult to cure, is well established in his house. I infer from its upward progress that it is only a question of time before the whole of the woodwork is affected, unless very drastic and thoroughly scientific and practical measures are taken, and at once.

From practical experience, extending over many years, I can say with certainty that there is more woodwork affected than meets the eye; in all probability joists, wall plates, floorboards (although on the surface apparently sound), wood grounds, skirting, etc.

Only the most drastic measures are of any use. Treating places with liquid preservative will never stop the rot; it has clearly got beyond that mild palliative; every spore can and does fructify itself.

I had a case lately where the fibres of the rot passed through a 9 in. wall to obtain, by attacking, fresh material for its propagation. The best advice I can give J. D. in the circumstances is to call in an architect and surveyor, preferably one who specialises in the matter; but there must be no delay. I may add, from my own knowledge, that whatever the reason may be, Hampstead houses produce the worst kind of dry rot.

G. E. KNIGHT, F.S.I., M.I.Struct.E.

SIR,—I am very sorry not to have some word of comfort for your correspondent, but he is certainly "in for" an expensive business. All rotted wood should be cut out and burned, and in doing this it is wise to go well beyond what is thought to be the extent of the infection. All walls should be treated with hot tar, round about where the fungus has grown, and all woodwork with preservative, or, better still, with corrosive sublimate. The latter is a poison and should be carefully used. No half measures will do.

DRASTIC.

### Book Wanted.

[REPLY TO "BOOKMAN," OCTOBER 12.]

SIR,—I can recommend Mr. Frederick Dye's work on "Hot-water Heating" for your correspondent. This was recently noticed in your columns, and it is certainly an excellent text-book. It does not, of course, deal with labour-saving ideas generally, but I gather it is principally heating that your correspondent wishes to study.

ANOTHER BOOKMAN.

### Reinforced Concrete Text-book.

SIR,—I would like to find a small text-book giving the elements of reinforced concrete construction, with such formulæ, and their explanations, as will carry one through the average small job.

ARCHITECT.

### Damp Wall.

Sir,—I have trouble with an end wall, which is in a very exposed position. Invariably, after rain with wind, large damp patches show all over the interior at that end of the house. The wall is 9 in. brick, with pebble-dashed surface, but has no cavity. Cement washing and patching have frequently been tried, but provides only temporary cures. Would it be satisfactory and permanent to strip off the pebbled surface, put a layer of cement and waterproofer on to the bricks, and then replace the pebble dashing? Could you advise any other method of treatment so as to obtain a permanent cure?

PETROCK.

### Sound-proofing.

Sir,—Is there any satisfactory and economical method of sound-proofing the floor of a lavatory and bathroom which in part extend over a sitting-room?

W. M. JAMES.

### Question of Nuisance.

Sir,—Three weeks after I began my tenancy of a house in South-West London, the occupiers of the house next door started some kind of work on their premises. There is noise and vibration all day long, going on sometimes till 11 p.m., and it is impossible for me to use two rooms of my house. The noise is caused by machinery of some kind. Is it possible to have the nuisance stopped, and, if so, in what way must I proceed? Is the lease still binding on me?

TENANT.

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### Lincoln's Inn Old Hall.

It is understood that the King will reopen Lincoln's Inn Old Hall at some date in the latter half of November The work of restoring the Hall is now nearly complete. As far as possible, the old bricks and stones have been used and replaced in their old positions. Where new bricks have been found to be necessary, they have been specially made like the old Tudor bricks. Internally the Hall is now panelled in old oak.

# THE BUILDING TRADE

## EVERYDAY SCIENCE FOR ARCHITECTS AND BUILDERS—XXXIX

By A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E.
Diagrams and Illustrations by M. R. DUMVILLE.

### THE MAGNETIC EFFECT OF AN ELECTRIC CURRENT.

The numerous uses and applications involved in the consideration of the magnetic effect of an electric current are linked up in the term "electro-magnetism." Less than 100 years ago the "magneto-type" of machine depended for its action upon the permanent magnet. The fact that it had a very small output was found to be due to the very weak field that could be produced by a permanent magnet. It is generally believed that the most important of these magneto machines was the "Alliance" machine, due to Nollet, 1849. Much time and labour were spent in the development of this machine, so much so, that, in 1863 or thereabouts, it was used as the source of illumination in many lighthouses on the French coast. It is said that this was the first occasion on which electricity was used for lighting purposes. Owing mainly, as stated above, to the comparatively weak magnetic field of the permanent magnet, it was very far from being efficient.

To improve the output, suggestions were made and experiments were carried out between the years 1848 and 1863 by Brett, Sinsteden, and Wilde, and later by Siemens and Wheatstone, who substituted and attempted to make perfect the use of electro-magnets instead of permanent magnets for the purpose of obtaining very much stronger magnetic fields. To the above experimenters was due the origin of the "dynamo," which may almost be considered as the foundation-stone of all electrical machinery.

It will be distinctly advantageous to understand the principles involved when we are asked to plan and design houses for containing and floors for carrying, all types and sizes of electrical machinery. Among these may be mentioned transformer houses; buildings in which it is necessary to avoid the harmful vibrations from large dynamos, motors, alternators, etc.; shafts or wells in which are to be fitted all types of electric lifts; the fitting up with the necessary equipment the electric hoist which is now becoming so popular among builders for speeding up the transference of building materials from the ground floor to higher levels. Although it may not be considered necessary, anyway just here, to describe in detail any of these large machines with the

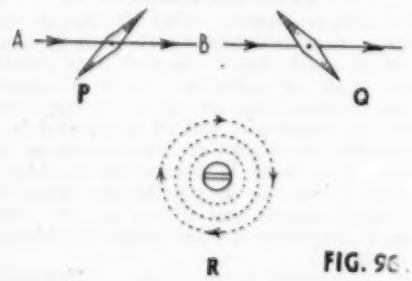



FIG. 96.

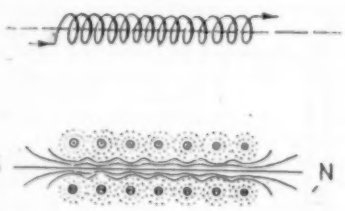
uses to which they are put, it may at least be thought helpful if a simple description of the principles involved be given.

**Oersted's Experiment. Figure 96.**

For the introduction of the electro-magnet into machinery it is generally agreed that the work of the Danish scientist, Oersted, should receive recognition, since the very existence of the idea of "electro-magnets" must be considered as a direct follow-on of his famous experiment. It was in 1819 when he showed that a magnetic needle tried to set itself at right angles to a wire carrying an electric current. He also showed that the direction in which the needle turned depended (a) upon the position of the needle with respect to the wire, i.e., whether it was above or below it, and (b) upon the direction of the current in the wire.

The experiment can be reproduced quite easily, since the only requirements are a compass needle, a piece of wire, and a simple

FIG. 97.




electric cell—a dry battery will do. The piece of wire, about a yard in length, is connected to the two terminals of the cell, when an electric current will flow along the wire from the positive terminal of the cell to the negative terminal. Arrange for the direction of the wire to be north and south, and for the current to be flowing from the south to the north.

First, place the compass needle below the wire as shown at Figure 96 P. The arrow-head indicates the direction of the current in the wire. Before the wire is connected to the cell the compass needle will lie parallel with it. As soon as it is connected up the marked end, blue end, or north end of the needle will swing over towards the west. This shows that *below* the current-carrying wire there is a magnetic field at right-angles to the wire, and in a direction east to west.

Next, place the compass needle above the wire as shown at Figure 96 Q, when the blue end of the needle will swing over towards the east. This shows that *above* the wire, which is still carrying an electric current from south to north, there is a magnetic field at right-angles to the wire and in a direction west to east.

Oersted's discovery, therefore, is that around a current-carrying wire there is a magnetic field. This is called the magnetic, as distinct from the chemical, or the heating effect of an electric current. It is quite as important as, if not more than, the heating effect.

**Ampère's Screw-rule.**

It is very necessary that one should be able to tell the relation between the direction of the current and the direction of the magnetic field due to the current. There are many rules for doing this, and probably the easiest to understand is Ampère's screw-rule. Let the direction, in which the length of a screw moves when it is turned into or taken out of a piece of wood, represent the direction of the current. You turn the head of the screw in a right-handed or clock-wise direction when you force it into the wood, so that its length is moving away from you, and *vice versa*. Therefore, if you look at a current-carrying wire and the direction of the current is away from you, you could represent on paper a section of the wire at that place by the *head* of the screw, and the magnetic field would be right-handed. This is shown diagrammatically at Figure 96 R. Conversely, if you look at a current-carrying wire, and the direction of the current is towards you, then the magnetic field around the wire would be left-handed. This case is generally shown on paper by a small circle with a dot at its centre representing the point of the screw. Suppose you were on the opposite side of a partition through which a screw was being turned, then the point would be coming towards you, and, as you looked at it, the screw would be turning in a left-handed direction. The reader should work cases out for himself, as the matter has an important bearing upon the construction of the electro-magnet.

**The Electro-magnet. Figure 97.**

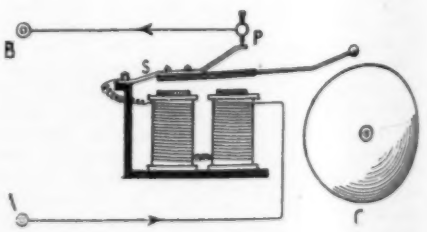
A coil of wire carrying a current is called a solenoid, and if we place a piece of soft iron along the centre of the coil so that the insulated wire is wrapped round the iron, the iron becomes magnetised and it is called an electro-magnet.

The explanation of Figure 97 is fairly straightforward. The upper part of the diagram represents a solenoid. It can be connected to the terminals of an accumulator so that the general direction of the current is from left to right as denoted by the arrow-head. In getting from left to right it passes round the turns of the solenoid in a right-handed direction as looked at from the end on the left.

The direction of the magnetic field or the lines of magnetic force may be gathered from an extension of Ampère's screw-rule. If the solenoid be looked at from the end on the left, the current is going round it in a right-handed direction, and therefore, like the screw, the direction of the lines of force will be away from you along the centre of the coil. This relation can be seen quite easily by a study of the lower part of Figure 97, which represents a plan of the lower half of a horizontal section of the coil. The screw-heads represent the current going down the turns on that side of the coil, while the circles with the dots at their centres represent the current coming up the turns on that side of the solenoid. The general direction of the magnetic lines between the screw-heads and screw-points is from S to N. Now if a piece of soft iron be placed down the centre of the solenoid the magnetic lines of force prefer going through the iron to going through air, and hence the iron becomes magnetised by the electric current flowing in the solenoid around it, and is called an electro-magnet.

The magnetic field of all electrical machines is due to electro-magnets, and it

FIG. 98.




must be sufficient here to add that the strength of these electro-magnets depends upon the number of ampere turns per inch length of the magnet, i.e., upon the product of the current flowing in the coil and the number of turns per inch length of the coil.

**The Electric Bell. Figure 98.**

Let us finish this article on the magnetic effect of a current by describing quite briefly one of the uses of an electro-magnet. One or more Leclanché cells is connected through a bell-push to the two terminals A and B

shown in the skeleton diagram of the electric trembling bell. Suppose the positive terminal of the cell is connected to terminal A, then, when the bell push is operated, the current will flow from A along the wire to one end of the lower of the two solenoids marked C. After flowing round the solenoids it passes to the top end of the spring marked S, along the spring to the point P where the spring makes contact with the end of an adjustable screw, and then on from the screw to terminal B, from which it makes its way back to the battery through the bell-push. Along each of the centres of the two solenoids passes a piece of soft iron. This becomes magnetised when the current is flowing and attracts the piece of soft iron to which the spring S is fastened. The end of the spring is thus pulled away from the point of the screw at P, when the circuit is broken and the current is stopped. The soft iron cores of the solenoids cease to be magnetised, and the spring is sufficiently strong to pull the piece of soft iron away from the ends of the electro-magnets so that it may again make contact at P, when the whole process is again repeated.

On an extension of the piece of soft iron attached to the spring is the hammer which strikes the gong each time the electro-magnet becomes magnetised. At the point P the circuit is rapidly made and broken so long as the bell-push is operating.

## HOUSE BUILDERS' CONFERENCE

A CONFERENCE of the National Federation of House Builders was held at Weston-super-Mare recently, at which Mr. G. Anstie Perks, F.I.O.B., presided. In opening the proceedings he said that it was acknowledged that the houses which they had in the past been the means of providing for the public—the wage-earning class—were not up to the high standard of those which were being built to-day. The provision of homes fit for heroes had to a large extent been attempted, and by the million of houses which had been erected something had been done to attempt the provision of suitable homes. As the house builders of England it had been their privilege to point out to the Ministry of Health the necessity of still providing, and in far greater proportion, numbers of houses for the lower-paid wage-earners of the country. By the aid of the subsidy they had been able to build very large numbers of houses which had been taken up, by the payment of small deposits and with the assistance of building societies, by the better-paid operatives of the country. This had been the means of providing a large number of freeholders, who would become the finest citizens of the country, and whose children would probably prove even better than their parents.

The great point to-day was, however, still for the needs of the lowest-paid operatives, who had not been in a position to pay 16s. to 18s. a week for one of the originally built houses. Unfortunately at the moment they had not been able to keep up the extraordinary production of last year, when no less than 273,000 houses had been built for the workers of the country. The building trade was only due to build 120,000 under the agreement made by the Joint Committee with the "Wheatley Government," but as the number for 1928 was 128,000, it would be seen that they had responded to the call made upon them. If that progress was to be followed up with vigour there must be some security as to the programme for the future.

The proceedings were then conducted in private, but a summary issued to the Press stated that the question of building by direct labour had been discussed, and a resolution passed protesting against direct labour in house building as being a menace to the community.

## PAINTERS' AND DECORATORS' CONFERENCE

FOUR hundred delegates attended the annual convention of the National Federation of Master Painters and Decorators of England and Wales, at the Hotel Majestic, St. Annes, from September 25. The convention opened on the Tuesday morning with an exhibition in the Ashton Pavilion of 1,000 examples of decorative art, the work of students associated with the Federation's educational scheme.

Mr. R. Brown, of Huddersfield, chairman of the Education Committee of the Federation, presided over the opening ceremony. He said that the exhibitions had been held for 24 years, and they, like the Federation, were founded to protect and promote the interests of the trade, both socially and technically. Those were the principles on which the whole foundation rested. In the trade they knew what the Federation had done for the trade. On the social side most of them remembered the friendships formed at the annual conventions, and last, but by no means least, they recollected the educational work.

Without the educational work the Federation would be a back number. From the educational side the Federation had more than justified itself. He remembered quite well at Newcastle, when the first exhibition was held, how it was stated "This is not good enough." That went home to a few of them, and he thought they could say that real progress had been made since then.

The annual general meeting was opened on Wednesday morning by Ald. W. F. Holden (Mayor of Lytham St. Annes). Mr. T. Foster, of Burnley (President of the Federation), presided.

The President proposed and Mr. H. S. Manning (Bedford), a past president, seconded a vote of thanks to the Mayor

The President extended a cordial welcome to the Irish and Scottish delegates, and Mr. J. Orr (Glasgow), who responded, emphasised the value of the Federation's work, and instanced the reward of co-operation in the Glasgow dispute over the employment of union and non-union labour.

Mr. John R. Chappell, of Leeds, was appointed as the Federation's new president: Mr. A. Andrews, of London, as the vice-president; Mr. Thomas Foster, of Burnley, as treasurer; and Mr. Will Mellor was re-elected secretary.

The annual dinner was held at the Hotel Majestic on Wednesday evening. Mr. Alexander Orr (Glasgow) proposed the toast of the National Federation, after the loyal toast had been honoured at the call of the president. Mr. Orr spoke on the ideals of the Federation. If they could not realise all those ideals, the striving was the main thing. The lazy and indifferent said there was no use in federation, but where there was no federation there was nothing but chaos, and where there was chaos no progress at all was made. Only where personal likes and dislikes were made subservient to the welfare of the whole would good result. Science had come to the aid of the painter, and the scientific manufacture of materials demanded a higher ideal of craftsmanship. Craftsmanship was the foundation on which the Federation rested. Although up to the present they might not have realised their ideals, let those ideals remain, and let the Federation and its members look hopefully to the future.

Responding, Mr. Thomas Foster, the president, referred to the practice of price-cutting. Some members were inclined to regard themselves as public benefactors if they quoted low prices. Yet it was a common experience that most people liked to pay decent wages, and it was not fair for anyone to contract for work at a low price which prevented both the contractor and his competitors from making a fair living. In return for that living they should be prepared to give good service, but obviously it was impossible to give first-class service at third-class prices.

Mr. J. H. McDermidd proposed the toast of "Kindred Associations." Mr. John Scott (Glasgow), responding, emphasised the need for harmony between the associations, so that all could speak with one united voice. Amalgamation might not be possible, but the need for unity was plain to be seen. The Federation was formed to protect and promote the interests of the trade by social intercourse and educational work. That great object had been achieved.

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The Incorporated Institute of British Decorators held a meeting during the Conference. The President, Mr. Godfrey Giles, F.I.B.D., in the course of an address, said that the Incorporated Institute of British Decorators was not a local or a London institution. It was the Decorators' Institute of the whole of the United Kingdom, and its members were in all parts of Great Britain and Ireland; hence the importance of meetings in the provinces. One of the objects of the Institute, he continued, was to raise the status of decoration as a whole so that the decorator would have the same position in the estimation of the public in general, and architects and surveyors in particular, as that accorded to any other trained specialist. To that end the Institute had considered that the decorator should have a professional standing and, therefore, had conceived it desirable that a University training should be associated with the ordinary technical apprenticeship. As a beginning a lectureship had been founded in London University, which would embrace the higher subjects of the decorative art as well as the business side of a decorator's business. The B.A. Degree or the University certificate would wholly or partly exempt holders from the Institute examinations, and would, it was hoped, afford an opportunity to all decorators who desired their sons to combine a University training with specialised instruction in the subjects which they would ultimately require in the exercise of their craft. Although the scheme of University training had been inaugurated in London, it was intended to extend it to other Universities in England, Scotland, Wales and Ireland, when desired by the Institute's branches, as and when funds would permit.

The Council hoped that in the future a Royal Charter could be obtained in favour of the Institute, which might then be called the Royal Institute of British Decorators. To enable the Institute, however, to obtain this honour it was necessary to have an adequate representation of the master painters and decorators in the United Kingdom and Ireland as members, and he appealed to the present members so to increase the membership of the Institute with competent craftsmen that a petition for the Royal Charter could be presented with a reasonable hope of success.

A new feature had been introduced during the past year by supplying badges of membership for Fellows and Associates, and these were being subscribed for in large numbers by the members. These were very useful at these meetings and could be obtained on application to the secretary. An innovation, concluded the president, was the creation of two new classes of non-corporate members of the Institute known as Probationers and Students. The object was to attract to the Institute young students and apprentices, and all those intending to follow the craft of decoration, and so make the Associateship by Examination the goal.

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**New Sewage Scheme, Nottingham.**

The City Council has sanctioned a new sewage disposal scheme for the Nottingham district, at a cost of £331,400. It provides for settling tanks, pumping station and filters. The City Engineer is Mr. A. Brown, M.Inst.C.E

# NEW BUILDINGS IN LONDON

*The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.*

**Abbey Wood.**—OFFICES.—Mr. J. O. Cook, architect, 1a, Eleanor-road, Woolwich, has made application to the Woolwich Council on behalf of Premier Electric Welding Co., Ltd., for the erection in Harrow Manorway, Abbey Wood, of offices, workshops, canteen and lavatories.

**Barking.**—FACTORY.—The Low Temperature Carbonisation, Ltd., 3-4, Clements Inn, W.C.2, have acquired a large site on Thamesside for the erection of a works to produce smokeless fuel. Plans are being prepared under the supervision of Col. W. A. Bristow, 39, Grosvenor-place, S.W.1.

**Beckton.**—ADDITIONS.—Extensive additions are to be made to the Beckton gasworks of the Gas Light and Coke Co., under the direction of Mr. T. Hardie, the chief engineer.

**Camberwell.** — BUILDING. — The London General Omnibus Co., Ltd., have applied to the Camberwell Council for permission to erect a building upon the site of 328 and 330, Camberwell New-road.

**Camberwell.**—BUILDING.—Mr. J. A. Evans, architect, 22, Surrey-street, W.C.2, has prepared plans for a building at Nos. 32 and 34, Verney-road, S.E.

**Canning Town.**—PREMISES.—The trustees of the Dockland Settlement and Malvern Boys' Club have placed a contract for their new premises and baths, etc. The builders are Messrs. C. Yates and Co., 106, Campbell-road, Bow, E.3. The buildings have been designed by Messrs. Holman and Goodsham, 6, King's Bench-walk, Temple, E.C.4.

**Downham.**—SCHOOL.—A further Roman Catholic elementary school is to be built on the L.C.C. housing estate. The architect is Mr. J. W. P. Conlan, L.R.I.B.A., 19, Alderbury-road, Barnes, S.W.13.

**Dunton Green.**—FACTORY.—Plans for the large factory for the J. M. Newton Vitreo-Colloid (1928) Co., Ltd., are now being completed. The architect is Mr. James A. Bowden, F.R.I.B.A., 3, Ashburn-gardens, S.W.7.

**Earl's Court.**—CIRCUS.—The Underground Company have so far only granted a lease of the Empress Hall at Earl's Court to Mr. Gordon Bostock, for a period of four months, covering the present Christmas season. The Empress Hall is to be used for the purpose of a circus. The railway company is proceeding with its own plans for developing the Earl's Court site as an exhibition ground.

**Eltham.**—HOUSES.—Mr. G. T. Scudamore, 172, Footscray-road, Eltham, has made application to Woolwich Council for erection of 32 houses on the west side of Green-lane.

**Eltham.**—SHOPS.—Mr. S. W. Ackroyd, of Commonwealth-buildings, Albion-road, Woolwich, architect to the Royal Arsenal Co-operative Society, Ltd., has prepared plans for shops and stores, with flats over, on the east side of Westhorne-avenue, Eltham.

**Harley-street.**—HOME.—The contract for the erection of the nursing home and clinic in Harley-street, Marylebone-road, and Devonshire-place, W.1, will be carried out by Messrs. Humphreys, Ltd., Knightsbridge, S.W. The cost is estimated at £356,000. The building has been designed by Mr. C. H. Biddulph Pinchard, F.R.I.B.A., 9, Staple Inn, Holborn, W.C.

**Hatfield-street.**—PREMISES.—Works' building, constructed of reinforced concrete, is to be built in Hatfield-street, S.E.1, for the Cornwall Press, Ltd. Plans have been prepared by Mr. Thomas J. Fox, Doric House, Museum-street, W.C.1, in conjunction with Mr. Alexander Drew, consulting engineer, 108, Victoria-street, S.W.1.

**Leadenhall-street.**—REBUILDING. — Messrs. Holland & Hannen and Cubitts, Ltd., 256, Gray's Inn-road, W.C.1, have received the contract for underpinning and foundation work in connection with the rebuilding of Nos. 140-144, for the Midland Bank, Ltd. The architects are Messrs. Whinney, Son and Austen Hall, 8, Old Jewry, E.C.2.

**Piccadilly.**—CONVERSION.—A contract has been placed for the conversion of the large mansion, at No. 142, into self-contained flats. The contractors are Messrs. James Smith and Sons (Norwood), Ltd., Norwood Junction, S.E.25. The plans have been prepared by Messrs. Wills and Kaula, 22, Southampton-street, W.C.1.

**Stepney.**—BANK.—Barclay's Bank, Ltd., have in view the erection of a branch bank on a site at the junction of Commercial-street and Brushfield-street, E.1., adjacent to Spitalfields Market. Plans have been prepared by Messrs. E. C. P. and H. Monson, Finsbury Pavement House, Moorgate, E.C.2.

**Vauxhall.**—WAREHOUSE.—A contract is to be shortly placed for the erection of a large warehouse in Vauxhall Bridge-road, S.W.1. The plans have been prepared by the architects' Department of Messrs. Hillier, Parker, May and Rowden, of Maddox-street, W.1, whilst the reinforced concrete designs have been completed by Messrs. Edmond Coignet, Ltd., of Gower-street, W.C.2.

**Watford.**—BUILDING.—A new casuals' block is being erected at the Watford Infirmary by Messrs. F. D. Hidden & Co., Ltd., building contractors, Brentford. Messrs. Young & Co., 6, Queen Anne's-gate, S.W.1, are supplying the constructional steelwork, and the architects are Messrs. Saxon Snell & Phillips, FF.R.I.B.A.

**Willesden.**—ADDITIONS.—Additions are to be erected at the factory in Cumberland-avenue, Park Royal, N.W., of the Milk Trades Supplies, Ltd. The plans have been prepared by Mr. A. S. Parr-Head, Ealing, W.5.

**Woolwich.** — HOUSES. — The Woolwich Borough Council has accepted the tender of Messrs. James Byrom, Ltd., of Bury, for the erection of 121 houses on the Eltham housing estate. The tender price is £60,900.

# NEW CINEMAS

Plans for a new cinema at Burnage-lane and Errwood-road, Burnage, have been passed by the Manchester Corporation.

A local syndicate has been formed for the development of the Waunlanyrafon Estate, Llanelly, where it is proposed to build a row of shops, a billiard and dance hall, a large garage and super cinema. Plans for this scheme, which is estimated to cost £50,000, are being prepared by Mr. Sydney E. Crocker, L.R.I.B.A., architect, Rochester House, 37, Portland-street, Swansea.

The plans for the new picture theatre for Kingston, referred to in last week's *Builder* on page 618, have been prepared by Mr. A. J. Hardwick, F.R.I.B.A., Eagle-chambers, Eden-street, Kingston. Building work will commence shortly.

A contract for the large picture theatre to be built at the corner of Soho-road and Booth-street, at Handsworth, has been placed with Messrs. W. J. Whittall & Son, 132, Lancaster-street, Birmingham. The building will be capable of seating over 2,000 persons and will cost £40,000. The architect is Mr. Harold S. Scott, A.R.I.B.A., 115-117, Colmore-row, Birmingham.

A company with a capital of £500,000 is to be formed to carry out a scheme for the erection of large picture theatres at New Malden, Wood Green and Wembley, with seating accommodation of between 2,000 and 3,500 each. The architect is Mr. J. Stanley Beard, F.R.I.B.A., 101, Baker-street, W.1.

A new company, with a capital of £20,000, has been formed to acquire a site in Holderness-road, Hull, and to build a cinema to hold 1,000 persons. The architects are Messrs. Gelder & Kitchen, 120, Alfred Gelder-street, Hull.

The Burlington Picture House (Torquay), Ltd., has decided to commence operations upon the erection of a new picture theatre to seat 1,200 persons. The plans have been prepared by Messrs. Bridgeman & Bridgeman, 9, Fleet-street, with Mr. Robert Atkinson, F.R.I.B.A., 36, Bedford-square, W.C.1, acting as consultant.

Plans have been prepared by Mr. William Thornley, L.R.I.B.A., of Clarence Chambers, 46, Wallgate, Wigan, for a cinema to hold 1,200, at Earlstown, Lancs. An early start on the building is expected.

A large circuit of cinemas is to be built in London and the Home Counties by Mr. E. Carreras, Kent House, Regent-street, W. Twenty theatres are planned, and sites for five are already obtained. A contract for a building to hold 3,000 persons at Wood Green has been placed with Messrs. Hammond & Barr, Ltd., 52, Beauchamp-place, Chelsea, S.W., to plans prepared by Mr. W. J. King, 5, Great James-street, W.C.1.

The plans for the exhibition hall—on the Salford Cattle Market site—after two years appear to have reached maturity, and will shortly come before the City Council. The total cost will be £750,000, and the scheme, in addition to comprising two exhibition halls, a 1,000 persons capacity restaurant, a ballroom, and amusement park, includes a cinema to accommodate 3,000. Mr. Robert Atkinson, F.R.I.B.A., 36, Bedford-square, W.C.1, is the architect.

# SOUTHERN BUILDERS

The first of a series of quarterly conferences organised by the Southern Counties Federation of Building Trades' Employers was held on October 4, at Hastings. Mr. J. Simmonds, chairman of the local association of employers, presided at the luncheon. The Mayor (Councillor A. D. Thorpe) was the guest of honour, and among others present were Mr. R. H. Tribe, Councillor Bending, Messrs. A. Cannon, H. Edwards, H. T. Elgar, J. Lester, junr., S. Little, D. W. Jackson, H. Ward, C. Callow, H. M. Jeffery, P. H. Oxley, H. Burleigh and H. Cousens.

Mr. Tribe, in proposing the toast of the local association, said some of the everyday difficulties met with would not arise, or, having arisen, would more readily disappear, if the Federation were stronger. Builders up and down the country were realising the value of organisation—and the value of meeting organisations of architects to their mutual advantage.

The Chairman, responding, said he regretted the local Association did not get the support from builders in the town that it was entitled to. The object of the Association was to be able to settle all minor disputes, but they were not strong enough to do this at present, nor were they strong enough to fulfil adequately another important object—to meet and confer with other organisations in the town. Many of the buildings in Hastings had never seen the pencil of an architect. They would like to see the city beautiful, and if they got more support from the builders of the town then they might occasionally confer with the architects and see if something better could not be done.

Mr. J. Lester proposed "The Visitors." The Mayor, responding, said that nothing was of such everlasting credit to a man as to be the author of a good building, well and truly put up.

Mr. Little, also responding to the toast, said he believed the freedom from labour troubles was due in no small way to the work of the Association.

The business meeting followed, at which Mr. R. H. Tribe presided. Among other matters, Mr. Simmonds introduced the question of the menace of direct labour. It was arranged that a pamphlet, setting forth the facts, should be circulated among members of the councils of local authorities.

# BOOK REVIEWS

*The Trade Disputes and Trade Unions Act, 1927.* Annotated with four introductory Chapters and Notes. By Lewis B. Ferguson, of Gray's Inn, Barrister-at-Law. Foreword by the Right Hon. Lord Askwith, K.C.B., Chief Industrial Commissioner, 1911-19. (London: Butterworth & Co.) 5s. net.

We have here a compact little volume of just under 100 pages (excluding the Tables of Statutes and Cases), with the text of the Trade Disputes and Trade Unions Act and the index, and printed in extremely legible type. Lord Askwith, in his foreword, says the author shows no partiality, and that using this volume as a handbook, lawyers can quickly find principles and references, whilst laymen can learn in an easy way arguments for speeches and the main points of an intricate subject; but, having regard to the complication of the law on the subject, he advocates consolidation of the statutes. Lord Askwith says that one great lesson brought to his mind by this little book is that the new Act is the historical sequence of much that has gone before and that it evinces no revolutionary change in the law, either by destruction or construction.

The plan of the work is as follows: There are four chapters in the introduction: (1) Trade Unions, their development and legal status; (2) Trade Disputes; (3) Picketing; and (4) Strikes and Lock-outs: their legal position prior to the passing of the present Act. The author, in his preface, states that the previously existing law as to the legality of strikes is admittedly uncertain, and this last chapter is of necessity somewhat speculative. This portion of the work, which occupies 50 pages, is entitled "Introduction," and is largely historical, leading up to the new Statute. Then follows the text of the Act, each section being annotated, and with a table of contents of the notes printed where necessary immediately after the text of the sections of the statute, an arrangement which we consider facilitates easy reference to the work on any point.

It is this part of the work which is of special interest at the present time, when both practitioners and laymen will be seeking a guide to the new Act; but the first part is equally important to enable a grasp of the subject to be obtained, and in the notes to the new Act there are references to the first part, so that the work forms one homogeneous whole.

One question will have to be decided in the future, and that is the status of the General Council of the Trade Union Congress as regards strikes. The author gives a very fair summary of the decision delivered in the case National Sailors' and Firemen's Union of Great Britain and Ireland *v.* Reed (1926, 1 Ch. 536), and no exception can be taken to his comments thereon; but we think, for the reasons we shall state below, that in the quotation from the judgment at page 49 of this volume, a passage is omitted which is material. After the first passage quoted in the first three lines of this page, the following passage occurred before the further portion quoted: "Now the law upon the matter is as follows: No member of the plaintiff union or any other trade unionist in this country can lose his benefit by refusing to obey unlawful orders, and the orders of the Trade Unions Congress, and the unions who are acting in obedience thereto in bringing about the so-called general strike, are unlawful orders, and the plaintiff union is entitled to have this fact made clear and brought to the attention of its members."

That case was much discussed during the passage of the Bill through Parliament, one side declaring that it pronounced the general strike illegal, whilst the other side asserted that the pronouncement as to the general strike was *obiter dictum*, as the real decision was only that the officials of a branch of the plaintiff's union had acted contrary to the rules of the union in calling the strike.

We take this opportunity of making one or two observations on this case. Both sides in that case invited the Court to state its opinions on their rights and position in a difficult situation. The General Council of the Trade Unions Congress had called a general strike, and the branch had obeyed that call; whilst the plaintiff union alleged that they had no power so to do under the constitution and rules of the union. The Court, in the first instance, decided that the call to strike by the General Council could not be legal, because no trade dispute had been shown to exist in the unions affected (the miners alone were involved), and that no trade dispute could exist between the Trade Unions Congress and the Government of the nation. This point was raised for decision by the Court, in that in the application for an injunction it was alleged that the defendants had acted contrary to the common law of the country; but, of course, it is true that the General Council of the Trade Unions Congress was not a party in the action. Then the Court found that, in addition to acting, as above stated, unlawfully in obeying the call, they had broken the rules of the union. The proceedings were interim proceedings for an injunction pending trial, and the defendants had the option of giving an undertaking not to call out members pending trial and before an injunction was granted, but they desired to know their rights first, and, having heard the opinion of the Court, they elected not to give the undertaking, but that an injunction should be granted. This was, therefore, in the nature of a declaratory judgment, and we venture to think it cannot be dismissed as an *obiter dictum* on the first point; but as we said above, the status of the General Council of the Trade Unions Congress itself as regards calling strikes, whether it has any protection at all under the Trade Unions Acts remains to be decided.

We endorse Lord Askwith's opinion that no partiality is displayed by the author in this work, and we can confidently recommend it as a valuable guide to the new Act and to the questions involved in Trade Union law.

*Steam Storage.* Greater Productive Efficiency in Industrial Plants. By Alfred J. T. Taylor, Member, Institute of Fuel, etc. An exposition of Dr. Johannes Ruths' Steam Accumulator System. Africa House, Kingsway, London, W.C.2. 1928.

In the way of releasing and controlling natural energy, science has a fairly complete record behind it. The atom certainly has yet to be split, but combustion, ebullition, hydraulics, and electricity, have each, to some extent, become tamed in the service of man. Having conquered the field to this extent, modern science appears to be concentrated upon the problem of how to conserve the natural energy it has brought into its service. The shrill hiss of escaping steam at the railway siding; the black smoke belching out of the factory chimney; these are the clear signs that waste is proceeding; just as the benzol pump and the great steam condensers speak for the other side. It is all part of that friendly warfare for mastery between man and nature.

Mr. Taylor's admirable description of the Ruths' steam accumulator is therefore of interest to a wide field of readers. The idea of storing waste steam in a thermos flask for use when required is a simple one. But the means of maintaining a constant steam pressure from this auxiliary source by an ingenious system of compensating valves is a complicated problem, into which only the clear exposition of a competent man can let daylight. Mr. Taylor has succeeded in such a task.

The diagrams and technical plates are all arranged in sequence at the end of the booklet, folded so that the subject and number of each is at once apparent. Each can be opened out so that the matter it contains can be read side by side with the text—a great assistance to close and detailed study, and a system that might be copied with advantage in the case of a good many technical works.

# EXHIBITION OF INVENTIONS

Several exhibits of interest to the building industry are on view at the International Exhibition of Inventions which opened at the Central Hall, Westminster, on October 10, and closes to-morrow (Saturday).

The Beachcroft Concrete Slab and Block Co., Ltd., of Leytonstone, show an invention which may be summarised as a fencing post (reinforced concrete) with housings so designed that a standard rail and gravel board may be inserted without mortising or halving and thus allowing of rapid erection with an accompanying saving in carpenter's work and labour. It provides an economical and attractive looking fence.

An automatic door fastening for motor-cars, houses, railway carriages, etc., is exhibited by Mr. C. A. Morgan, of Liverpool. The important feature of this is the ease with which doors can be opened and closed, at the same time providing absolute security. A locking device is combined with it which, when released, operates automatically on closing of the door, and is unlocked by a key. This locking device may alternatively be arranged to unlock with a turn of the handle.

An improved chimney and ventilating cowl for geysers, chimneys, and the general ventilation of large buildings is exhibited by Mr. M. Ward, of Ilford. This cowl is claimed to stop downblow, produce a powerful up draught, and catch the wind at any point in the air inlet, which is operated automatically by the head of the cowl.

An automatic burglar-proof and safety window fastener, shown by Mr. T. Oborn, of Bournemouth, provides for the automatic locking of windows in opened or closed positions, so that they cannot be opened from the outside. The action is entirely automatic and consists of a spring-operated bolt.

A device called the "Slide-o-Runner," exhibited by Mr. H. Buck, is applied to light sliding sash windows, sliding or running doors, shutters, etc., and effectively prevents rattle.

A new sanitary strainer and trap combined, designed for scullery sinks and similar situations, is exhibited. This device prevents obnoxious and infectious fumes rising from main drains and the pipes into which sinks are emptied, and will pass small substances and water out to the main drain with a spray effect and without choking.

A useful lining sheath for attachment to painters' brushes is shown by Mr. Thomas Shirley, of Westbourne Park. This will make a straight line in one operation. It prevents the bristles from creeping and leaves no fatty edges. It can also be useful for signwriting, as the letters can be formed and filled in at the same time.

An instrument called the "Cambermeter" is for taking short-distance levels, such as the camber of roads, the checking of levels for drain or water-pipes, the levelling of inequalities in lawn-tennis courts and bowling-greens, or for architectural work.

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**New Store Building, Leeds.**

Messrs. Lewis's, of Manchester, Liverpool and Birmingham, have acquired from the Corporation of Leeds a site of over 45,000 sq. ft. on the new main street which the Corporation proposes to construct. The store will be in accordance with the general design for the thoroughfare prepared by Sir Reginald Blomfield, R.A., F.R.I.B.A. The cost of the building is estimated at £750,000.

# RATES OF WAGES IN THE BUILDING TRADE

**[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]**

| | Masons. | Bricklayers. | Carpenters Joiners. | Plasterers. | Slaters. | Plumbers. | Painters. | Labourers. |
|---|---|---|---|---|---|---|---|---|
| Aberdare | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Accrington | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Aldershot | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Alfreton | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Alnwick | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Altrincham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Ashford Kent | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Ashington | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Ashton-under-Lyne | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Aylesbury | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Aylsham | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Banbury | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Barnsley | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Barnstaple | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Barrow-in-Furness | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Barry | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Basingstoke | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Bath | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Bedford | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Berwick | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Bexhill | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Birkenhead | 1/10 | 1/10 | 1/10 | 1/11 | 1/10 | 1/10 | 1/9½ | 1/4½ |
| Birmingham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bishop Auckland | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Blackburn | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Blackpool | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bolton | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bournemouth | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Bradford | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bradford-on-Avon | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/3 | 1/0 |
| Braintree | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Brentwood | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Bridgwater | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Bridlington | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Brighton | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Bristol | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bromsgrove | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Bromyard | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 11½ |
| Bungay | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Burnley | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Burton-on-Trent | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bury | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Buxton | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Cambridge | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Canterbury | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Cardiff | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Carlisle | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Chatham | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Chelmsford | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Cheltenham | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Chester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Chesterfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Chorley | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Cirencester | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/3½ | 1/0½ |
| Clacton | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Colchester | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Coventry | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Cranbrook | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Crewe | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Cromer | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Darlington | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Deal | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Denbigh | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Derby | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Devizes | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/3 | 1/0 |
| Dewsbury | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Doncaster | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Dorchester | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/3 | 1/0 |
| Dorking | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Dovercourt | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Driffield | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Droitwich | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Dudley | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Durham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Eastbourne | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| E. Glam. (Mon. Val.) | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Ely | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Exeter | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/5½ | 1/2 |
| Exmouth | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Fakenham | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Felixstowe | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Folkestone | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Frome | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/3 | 1/0 |
| Glossop | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Gloucester | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/5 | 1/1½ |
| Godalming | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Goole | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Gosport | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Grantham | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Great Yarmouth | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Grimsby | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Guildford | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Halifax | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Harpenden | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Harrogate | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Hartlepools | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Harwich | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Hastings | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Hatfield | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Hednesford | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Hereford | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/4½ | 1/1½ |
| Herne Bay | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Hertford | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Hitchin | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Hoddesdon | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Holt | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Huddersfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Hull | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Hunstanton | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Huntingdon | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Isle of Wight | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 11½ |
| Ipswich | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Keighley | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Kettering | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Kidderminster | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| King's Lynn | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Lancaster | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Leamington Spa | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |

| | Masons. | Bricklayers. | Carpenters Joiners. | Plasterers. | Slaters. | Plumbers. | Painters. | Labourers. |
|---|---|---|---|---|---|---|---|---|
| Leeds | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Leicester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Leighton-Buzzard | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Lichfield | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Lincoln | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Littlehampton | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Liverpool | 1/10 | 1/10 | 1/10 | 1/11 | 1/10 | 1/10 | 1/9½ | 1/4½ |
| Llandudno | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Llanelly | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| London: | | | | | | | | |
| 12 m. radius | 1/9 | 1/9 | 1/9 | 1/9 | 1/9 | 1/9 | 1/8 | 1/4 |
| 12-15 m. radius | 1/8½ | 1/8½ | 1/8½ | 1/8½ | 1/8½ | 1/8½ | 1/7½ | 1/3½ |
| Loughborough | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Lowestoft | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Luton | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Macclesfield | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Maidstone | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Malvern | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Manchester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Mansfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Margate | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Market Harb'rough | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Matlock | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Melton Constable | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Melton Mowbray | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Merthyr Tydfil | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Middlesbrough | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Newark | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Newbury | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Newcastle-on-Tyne | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Newcastle-ur-Lyme | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| New Forest | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Newmarket | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Newport, Mon. | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Northampton | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Norwich | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Nottingham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Nuneaton | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Oakham | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Oldham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Oxford | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Paignton | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Peterborough | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Plymouth | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/6½ | 1/2½ |
| Pontypridd | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Portsmouth | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Preston | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Ramsgate | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Reading | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Redcar | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Redditch | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Reigate | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Retford | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Ripon | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Rochdale | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Rochester | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Rugby | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Saffron Walden | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 11½ |
| St. Albans | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| St. Helens | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Sawbridgeworth | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Saxmundham | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 11½ |
| Scarborough | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Sevenoaks | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Sheffield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Shrewsbury | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Sittingbourne | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Southampton | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Southend-on-Sea | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Southport | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| South Shields | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stevenage | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Stockport | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stockton-on-Tees | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stoke-on-Trent | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stourbridge | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Stourport | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Stowmarket | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Stratford-on-Avon | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Stroud | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/4½ | 1/0½ |
| Sunderland | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Swaffham | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Swansea | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Swindon | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/4½ | 1/0½ |
| Tamworth | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Taunton | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Thetford | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Torquay | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Totnes | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Trowbridge | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Tunbridge Wells | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Uttoxeter | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Wakefield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Walsall | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Wallsend | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Warminster | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/3 | 1/0 |
| Warrington | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Warwick | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Wells (Norfolk) | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Welwyn Gar. City | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2 |
| West Bromwich | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Weston-sup.-Mare | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/4½ | 1/1½ |
| Weymouth | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Whitby | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Wigan | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Winchester | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Windsor | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Wisbech | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Wolverhampton | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Woodbridge | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Worcester | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Worksop | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2 |
| Worthing | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Wrexham | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Wroxham | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 11½ |
| Wymondham | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/2 |
| York | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |

For rates of wages in the Building Trade in Scotland, see page 660

# CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

*The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.*

Following is a list of abbreviations :—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

## BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc

### OCTOBER 22.

**Ballytrea.**—School.—Public elementary school at Drumbonaway, for Cookstown Regional E.C. M'Carthy & Lilburn, quantity surveyors, Scottish Provident Buildings, Belfast. Dep. £1 1s.

**Birmingham.**—Houses.—209 non-parlour type houses on Gravelly-hill estate, Erdington, for T.C. Herbert H. Humphries, City E. and S. Dep. £1 1s.

**Caerleon.**—School.—New infants' school and manual and domestic science centre, and for carrying out additions and alterations to existing school buildings, for Williams's Schools Governors. C. E. Tebbs, A.R.I.B.A., 28, High-st., Newport. Dep. £2 2s.

**Edinburgh.**—Extensions.—To electric generating station, Westbank, Portobello, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

**Greenwich.**—Reinforced concrete lining of coal bunkers.—At the Greenwich Power Station for the L.C.C. General Manager of Tramways, Tramway Offices, Victoria Embankment. Dep. £2 by cheque or draft to the order of the L.C.C.

**London, S.E.**—Various Works.—Alterations and additions to and the conversion of Block "C" of the Lewisham Hospital to form receiving and casualty wards and out-patients' dept., for the Guardians of the Lewisham Union. W. R. Owen, Clerk to the Guardians, Guardians' Offices, 394, High-st., Lewisham, S.E.13. Dep. £5 5s.

**Lyme Regis.**—Houses.—24 on Council's housing site, Colway-mead, for T.C. E. Prescott, B.S., Philpott Museum. Dep. £2 2s.

**Manchester.**—Heating.—Installation required for Turkish baths at Public Baths, Choriton-cum-Hardy, for T.C. City Architect. Dep. 10s. 6d.

**Newcastle-upon-Tyne.**—Heating.—Accelerated low pressure hot water heating, etc., at Central Telephone Exchange, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

**Richmond (Surrey).**—Building.—To accommodate a winch and boiler, at Terrace Gardens well, for T.C. H. P. Williamson, engineer, Hotham House, Heron Court, Richmond. Dep. £1.

**Salford.**—Dwellings.—Layout of land and erection of 14 additional firemen's dwellings at rear of Central Fire Station, Crescent, for T.C. City E. Dep. £2 2s.

**Stockton-on-Tees.**—Fencing.—Provision and erection of approximately 500 lin. yds of wrought-iron fencing at Mount Pleasant estate, for T.C. J. P. Wakeford, B.E., Victoria-buildings.

**Wimbledon.**—Buildings.—Erection of new cemetery buildings and central nursery, comprising mess room, drying room, potting and other sheds, fuel stores, lavatories, etc., for the Wimbledon B.C. Borough Engineer's Office, Town Hall.

### OCTOBER 23.

**Barnsley.**—House.—In Mount Vernon-rd., for A. Squire. Chas. F. Moxon, architect, Regent-st. South.

**Edinburgh.**—Building.—For (1) Slater, glazier, and asphalt works for boiler-house extension, Electricity Supply Station, Westbank, Portobello; and (2) Demolition of old buildings at 7, Abbeymount and various works, in one undertaking, required in erection of extension of waiting-room at public washhouse, Abbeymount, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

***Kingston-on-Thames.**—Repairs and Materials.—War Department Contract. Artificers Works Contract from November 16, 1928. Kingston-on-Thames Area, including Hampton Court Barracks. Comm. Royal Engr., Woolwich District, R.E. Office, New-rd., Woolwich, S.E.18.

**London.**—Lighting.—Wiring and fittings for electric lighting of two blocks of dwellings comprising some 32 tenements on East Hill estate, Wandsworth, installation comprising 216 tenement and 13 common staircases and courtyard wiring points, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

**Maldon.**—Dwellings.—24 in Colchester-rd., Heybridge, and 6 near the station, Wickham Bishops, for R.D.C. Wm. Almond, S.

**Morley.**—House.—For caretaker, at Secondary school, for West Riding E.C. Education Department, County Hall, Wakefield.

**Ryde.**—Houses.—10 pairs of semi-detached non-parlour type, for T.C. B.S.

**Stockport.**—Telephone Exchange.—At Woodley, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**West Bromwich.**—Demolition.—Two old buildings at Hallam House, Hallam-st., for B.G. A. H. Ward, clerk, 22, Lombard-st.

### OCTOBER 24.

**Brierley Hill.**—Houses.—120 non-parlour type houses, together with drains, fencing and footpaths, on Nagersfield housing estate, for U.D.C. J. Yorke, S. Dep. £5 5s.

***Bristol.**—Colony.—Erection of, for the care of the mentally defective, at Hortham-lane, Almondsbury, near Bristol, for Mental Deficiency Act Committee of the Council. Josiah Green, T.C., the Council House, marked "application to tender for Hortham Colony." Dep. £10, to the City Treasurer.

**Cheadle.**—Extensions.—To Council school, for Chester E.C. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate-st., Chester. Dep. £1 1s.

**Edinburgh.**—Building.—For transformer house at Gilmerton; lavatories and shelter at Leith Links; shelter and lavatories at public park, New Craighall, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

**Keswick.**—Shops.—7 lock-up shops and 2 shops with flats over in Bank-st., for J. B. Wivell. J. Jennings, L.R.I.B.A., architect, Church-st., Ambleside.

**Laindon (Essex).**—Dormitory.—Construction of at Laindon, for the Poplar Board of Guardians, at their Farm Colony. Harley Heckford, M.Inst.,C.E., B.S., Council Offices, Poplar. Dep. £2 2s.

**London.**—Painting and Other Works.—To the interior of the dining hall at St. Leonard's House, 213, Kingsland-rd., E.2, for the Guardians, parish of St. Leonard, Shoreditch. F. Danby Smith, F.R.I.B.A., Parliament-mansions, S.W.1. Dep. £2

**Plymouth.**—Alterations.—To Cornwall-st. schools, Devonport, for C.B. J. Wibberley, Borough Engineer, Surveyor and Architect. Dep. £2 2s.

**Pontypool.**—Exchange.—Employment Exchange, for H.M.O.W. Contracts Branch, King Charles-st., London S.W.1. Dep. £1 1s.

**Prestwich.**—Houses.—6 "A2" type brick houses in two blocks, on Hope Park estate, and 2 "A" type brick houses on Langley estate, for U.D.C. M. A. Piercy, architect and Surveyor. Dep. £2 2s.

### OCTOBER 25.

**Bilston.**—Employment Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Glasgow.**—Houses.—174, on Saracen-st. No. 1 housing scheme, for T.C. D. Stenhouse, T.C.

**Kilrush.**—Reconstruction.—At District and Fever Hospital, for Clare County Board of Health and Public Assistance. R. Dowling, C.E., 1, Bindon-st., Ennis. Dep. £5 5s.

**Manchester.**—Building.—Propagating houses at Carrington Nurseries, for T.C. City Architect. Dep. £1 1s.

### OCTOBER 26.

**Birmingham.**—Office.—Erection of Western District Postmen's Office, for H.M.O.W. H.M. Office of Works, Paradise-st., Birmingham. Dep. £1 1s.

**Southampton.**—Fencing.—394 yds. run 6-ft. wrought iron fencing, and 283 yds. run 4-ft. wrought iron fencing, for C.B. B.E., 33-35, French-st.

**Torpoint.**—Reconstruction.—Demolishing and reconstructing of greater part of 49, Fore-st., for C. E. Veal. W. Roseveare, architect and surveyor, 2, Carlton-villas. Dep. £1 1s.

### OCTOBER 27.

**Ballycallan.**—School.—New National school, for Very Rev. Canon Power, P.P. Apply Parochial House, Kilmanagh, Co. Kilkenny.

**Callan.**—Reconstruction.—Of Callan Courthouse, for Kilkenny C.C. C.S., Courthouse, Kilkenny. Dep. £3.

***Eastbourne.**—New Buildings.—Erection of, at Bedfordwell. Highways Department, for the Highways Committee of the B.C. Borough Engineer's Office, Town Hall, Eastbourne. Dep. £2 2s.

**Hanworth.**—Hall.—Erection of Hanworth Village Hall, for Committee. R. G. Ridge, Laurel Lodge, Hanworth.

**Kent.**—Elementary School.—Erection of one at Wickham-lane, Welling, and the other at Woolwich-rd., Bexleyheath, for the Kent E.C. E. Salter Davies, Director of Education, Springfield, Maidstone, Kent. Dep. £2 2s.

**Oldbury.**—Installation.—For electrical, in Bristnall Hall-lane public elementary school, for U.D.C. F. Brooks, secretary, Education Department.

**Stoke and Wolstanton.** — Chimney. — Chimney-stack 175 ft. high, 5 ft. 6 in. internal diameter, on a prepared site at London-rd. Institution, near Newcastle, Staffs, for B.G. T. Wood, clerk, Union Offices, Stoke-upon-Trent. Dep. £1.

**Torquay.**—Rebuilding.—Of Babbacombe Court Cafe, on Babbacombe Beach, for T.C. B.E. Dep. £2 2s.

***West Ham.**—Extension and completion of the Plaistow Secondary School, Prince Regent-lane, Plaistow, for the West Ham B.C. Edu. Comm. John H. Jacques, L.R.I.B.A., 61, West Ham-lane, Stratford, E.15. Dep. £2.

### OCTOBER 28.

***Southgate.**—Hospital Building.—Erection of Ward Block for eight beds at the Isolation Hospital, Tottenhall-rd., Palmers Green, for the Southgate U.D.C. R. Phillips, S., Town Hall, Palmers Green, N.13.

### OCTOBER 29.

**Amesbury.**—Houses.—Newton Tony, two pairs non-parlour type houses; Allington, two pairs non-parlour type houses; Boscombe, two pairs non-parlour type houses, for R.D.C. R. G. Vincent, S. Dep. £2 2s.

**Beccles.**—Enlargement.—Of infants' school and erection of new practical instruction centre, Peddar's-lane, for East Suffolk C.E.C. J. Webb, L.R.I.B.A., Surveyor of County Buildings, County Hall, Ipswich. Dep. £2 2s.

**Bristol.**—Painting.—Internal painting to portion of passenger station at Royal Edward Dock, Avonmouth, for Port Authority. T. A. Pearce, chief engineer, Avonmouth Docks. Dep. £2.

**East and West Molesey.**—Convenience.—Overground public convenience near Molesey Lock, for U.D.C. E. H. Hutton, E. and S. Dep. £2.

**Enfield.**—Extensions.—Building of two extensions to the Hospital at World's End, Winchmore Hill, for the Enfield and Edmonton Joint Hospital Board. H. R. Crabb, A.R.I.B.A.

**Margate.**—Alterations.—At Thanet school, St. Peter's Footpath, to convert premises into public elementary school, for T.C. E. A. Borg, B.E. & S., 13, Grosvenor-place. Dep. £2 2s.

**Nottingham.**—Alterations.—Also extensions to Ragthorpe Infirmary, Hucknall-rd., for T.C. Starr & Hall, architects, 12, Victoria-st. Dep. £2.

**Uxbridge.**—Building.—Lavatories, dressing sheds and shelters, at Rockingham Recreation Ground, for U.D.C. L. Eves, F.R.I.B.A., 54, High-st.

### OCTOBER 30.

***Dagenham.**—Steel-Framed Building.—Erection of, with open front, for Council's mechanical vehicles, for the Dagenham U.D.C. Engr. and S., the Council Offices, Valence House, Chadwell Heath.

**Devon.**—Buildings.—Erection of show yard, grand stand, cattle, implements and other sheddings, etc., at South Molton, for the Devon County Agricultural Assn. Percy Whitton, Sec., 20, Queen-st., Exeter.

**Hove.**—Lake.—Constructing an ornamental lake in No. 8 Western Lawns, for T.C. B.S. Dep. £3 3s.

**London.**—Painting.—At the National Gallery, etc., W.C., for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

### OCTOBER 31.

**Friern Barnet.**—Shed.—Greenhouse and potting shed, inclusive of heating installation, at Friary-park, for U.D.C. J. M. Gameson, E. and S. Dep. £1 1s.

**Dromore.**—Barrack.—For R.U.C. at Dromore, County Tyrone, for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Dep. £1.

***London.**—Asylum Buildings.—Erection of gate porter's lodge and nurses' home at St. Margaret's Hospital, Leighton-rd., Kentish Town, N.W.5, for the M.A.B. Office of the Board, Victoria-embankment, E.C.4. Dep. £1.

***London.**—Cleaning and Painting Works.—At South Eastern Ambulance Station, New Cross, S.E.14, for the M.A.B. Office of the Board, Victoria-embankment, E.C.4. Dep. £1.

**Rochdale.**—Installation.—Electrical, for wiring, for C.B. Engineer & Manager, Electricity Works, Dane-st.

***Various Places.**—Various Works.—Building work alterations, etc., to various hospitals, for M.A.B. Office of the Board, Victoria-embankment, E.C.4. Dep. £1 in respect of each work.

**Whitland.**—Heating.—Heating apparatus at St. Mary's Church. F. J. Kerslake, clerk to St. Mary's Church Council.

### NOVEMBER 1.

**Thornbury.**—Roofing.—In portions of Thornbury Market, for R.D.C. F. W. Davies, S. Dep. £2 2s.

### NOVEMBER 2.

***London.**—Internal Painting Works.—At Cornwall House, Stamford-st., S.E. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Sheffield.**—Baths.—Public wash-house and baths, Wincobank, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

***South Kensington.**—Internal Cleaning and Distempering.—At the Science Museum (old buildings), South Kensington, for the Commissioners, H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

### NOVEMBER 5.

***Hendon.**—Hospital Buildings.—Erection of new chronic infirm wards and mortuary at the rear of the Infirmary, Edgware, for the Guardians of the Hendon Union. Union Offices, Edgware Dep. £5.

### NOVEMBER 6.

**Redcar.**—Post Office and Telephone Exchange, Erection of, at Redcar, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Richmond, Surrey.**—Cottages.—26 non-parlour type on the Manor-rd. estate, for the Richmond B.C. Borough Engineer & Surveyor, Town Hall, Richmond, Surrey.

### NOVEMBER 7.

***Boscombe.**—Telephone Exchange.—Erection of, for the Commissioners, H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Grantham.**—Houses.—44 non-parlour type, on Pelton-lane site, for T.C. P. A. Benn, B.S. Dep. £2 2s.

**Hoylake and West Kirby.**—Pavilions.—Pavilion at putting-green, Meols Promenade; pavilion at tennis courts, Upper-park, West Kirby, for U.D.C. E. and S. Dep. £1 1s.

***London.**—Painting and Cleaning Works.—At Adastral House, Kingsway, for the Commis-

sioners H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

✱**Stepney.**—Patent Flooring.—Laying of new patent composition flooring in the kitchen at the St. Peter's (Whitechapel) Hospital. S. McClelland, Clerk, Administrative Offices, Bancroft-rd., E.1. Dep. 10s. 6d., to the Treasurer.

✱**Stepney.**—Repairs.—Repairing of the boiler-house chimney shafts at the Bromley House Institution and St. Peter's (Whitechapel) Hospital, for the Stepney Board of Guardians. S. McClelland, Clerk, Administrative Offices, Bancroft-rd., E.1. Dep. 10s. 6d.

✱**Stepney.**—Ambulance Garage.—Erection of, for the Guardians of the Parish of Stepney at their premises in Bancroft-rd., E.1. S. McClelland, Clerk, Administrative Offices, Bancroft-rd., E.1.

**NOVEMBER 8.**

**Hitchin.**—Alterations and Enlargements.—Of the Post Office and Telephone Exchange, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

✱**Nottingham.**—Telephone Exchange.—Erection of, at Arnold, Nottingham, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

✱**Runcorn.**—Employment Exchange.—Erection of, at Runcorn, for the Commissioners, H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**NOVEMBER 9.**

✱**Bacup.**—Employment Exchange. — Erection of, at Bacup, Lancashire, for the Commissioners, H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

✱**Kingston-on-Thames.**—Employment Exchange.—Erection of, at Kingston-on-Thames, for the Commissioners, H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**London.**—Painting Works.—At H.M. Stationery Office, Shepherdess-walk and Underwood-st., N., for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**NOVEMBER 10.**

✱**Dover.**—Secondary School.—Erection of, at Dover, for the Kent E.C. Committee's architect, W. H. Robinson, F.R.I.B.A., Room 69, Sessions House, Maidstone. Dep. £2 2s. (payable to Kent E.C. and crissed).

**NO DATE.**

✱**Aberystwyth.**—Library.—Book stack at Library, for National Library of Wales. Adams, Holden & Pearson, architects, 9, Knightsbridge, S.W.1. Dep. £3 3s., with E. C. Pinks, quantity surveyor, Parliament-mansions, Victoria-st., S.W.1.

✱**Amersham.**—Houses.—Erection of 4 non-parlour, 3 bedroom and 18 non-parlour 2 bedroom, for the Amersham R.D.C. Burgess, Holden & Watson, architects, Beaconsfield, Bucks. Dep. £2 2s.

✱**Birmingham.**—New Premises for Parker Winder & Achurch, Ltd.—Estimates for erection of 95, Colmore-row, Birmingham. Contractors wishing to give estimates, apply to F. B. Andrews & Son, architects, and W. T. Benslyn, Associate Architect, 95, Colmore-row, Birmingham.

✱**Breconshire.**—Art Room and Physics Laboratory.—At the County School, Ystradgynlais, for the Breconshire C.C. E.C. H. C. W. Strickland, A.R.I.B.A., C.A., County Offices, Brecon.

**Crook.**—Fencing.—Supply and erection of approximately 480 yds. of wood fencing at Bankfoot Welfare Ground, Crook, for Peases West Collieries Welfare Association Committee. F. Dewell, secretary, Peases West Offices, Crook.

**Dewsbury.**—Demolition.—Of Imperial Garage, situate on Crackenedge-lane. The Cloth Hall Spinning Co. (1927), Ltd.

**Gainsborough.**—Repairs.—To farm buildings, Eastville. Apply to Elmes, North-st.

**Ipswich.**—Conversion.—Of West Ward at Isolation Hospital into nurses' quarters, for C.B. E. McLauchlan, Borough and Water Engineer.

**Newton Abbot.**—Gallery, etc.—Also organ loft at St. Joseph's Church, Newton Abbot, for Rev. Cowd. R. A. Rogers, architect and surveyor, 7, Union-st.

**Newtown.**—Alteration.—Also repair of house at Newtown, County Kildare. A. K. Sargent, engineer, Kill, Co. Kildare.

**Peterborough.**—Bungalow.—At South Beach, Hunstanton. A. W. Ruddle, F.R.I.B.A., Long Causeway, Peterborough.

**Rotherham.**—Painting.—Outside of 600 houses in town and district. E. Hutchinson & Son, Estate Agents, 18, Howard-st.

**Thornley.**—Painting.—Exterior of 21 aged miners' cottages and single men's hostel. J. Shearer, Office Villas, Thornley, Durham.

## MATERIALS, etc.

**OCTOBER 22.**

**Hertford.**—Highway Materials.—For T.C. B.E. and S.

**Stockton-on-Tees.**—Fencing.—500 lin. yds. of wrought iron fencing at Mount Pleasant estate, for T.C. J. P. Wakeford, B.E.

**OCTOBER 23.**

**London.**—Paint and White Lead.—For India Store Department, Director-General, Belvedere-rd., S.E.1.

**OCTOBER 24.**

**Edinburgh.**—Pipes.—114 tons of 33-in. diameter cast-iron pipes, for T.C. J. & A. Leslie & Reid, engineers, 29, Waterloo-place.

**Hastings.**—Pipes.—Delivery 2,040 tons of 18 in. cast-iron pipes and irregulars, for C.B. S. Little, Borough and Water Engineer.

**OCTOBER 25.**

**Horsham.**—Tarred Macadam.—For U.D.C. C. G. Atkinson, S.

**OCTOBER 27.**

**Bolton-upon-Dearne.**—Highway Materials.—For U.D.C. W. H. Adams, S.

**NOVEMBER 10.**

**Bradford.**—Builder's Materials.—For Corporation Tramways Committee. R. H. Wilkinson, general manager, 7, Hall Ings.

**NOVEMBER 12.**

**West Sussex.**—Road Materials.—For C.C. H. W. Bowen, C.S., Chichester.

**West Sussex.**—Tar.—200,000 gallons, for C.C. H. W. Bowen, C.S.

**West Sussex.**—Highway Materials.—For C.C. H. W. Bowen, C.S., Southgate House, Chichester.

**NOVEMBER 19.**

**Halifax.**—Castings.—1,300 tons of cast-iron pipes and special castings, chiefly 18 in. diameter, for Gorple Reservoirs, for C.B. G. H. Hill & Sons (Manchester), civil engineers, 40, Kennedy-st., Manchester. Dep. £1 1s.

## ROAD, SEWERAGE, AND WATER WORKS

**OCTOBER 22.**

**Breconshire.**—Road.—For (1) Widening and surfacing with waterbound granite or basalt of a length of approximately 1,100 yds. of the Talgarth-Three Cocks-rd., including necessary excavation, draining, foundation, fencing and surface dressing works; and (2) widening of road at bend near Black Rock Quarry, on Abergavenny-Brynmawr-rd., for C.C. J. M. Richards, C.S. Dep. £10.

**Ilford.**—Road.—Levelling, paving, metalling, flagging, channelling, kerbing, making good and surface water draining portions of Uphall-rd., from Jersey-rd. to northern boundary of Council school, and from southern boundary of school to borough boundary, for T.C. B.E. & S.

**Manchester.**—Paving.—For draining, paving (rock asphalte), flagging (artificial flags) etc., Mount-rd., Gorton, from Sandringham-st. to Buckley-rd.; sewering, draining, paving (concrete), and flagging (artificial flags), Sandhurst-rd., Didsbury, from Wilmslow-rd. to Didsbury-park, etc.; sewering, draining, paving (tar macadam), and flagging (artificial), etc., Levenshulme-rd., Gorton (Yeadon-rd to Hemsworth-rd.); draining, paving (concrete), flagging (artificial flags), etc., Burnham-av., Burnage; Burnham-drive, Burnage; Parr's Wood-av., Didsbury, from end of existing paving to Parr's Wood-rd. South; passage behind 87-97, North-rd., adjoining 1, Elgar-st., and vacant land on southerly side of Farrant-st., Newton Detached; Milton-grove (part of), Withington, for T.C. District Surveyor's Office, Town Hall. Dep. £1 1s.

**OCTOBER 23.**

**Dublin.**—Widening.—Of Dublin-bray-rd. at Woodbrook and Cabinteely, for C.C. C.S., 11, Parnell-sq. Dep. £5.

**Glasgow.**—Drains.—Roadways and surface water drains within Mearnskirk Sanatorium, Newton Mearns, for Corporation. D. Stenhouse, T.C.

**Lisburn.**—Reconstruction.—Repairs and reconstructing of (1) Central-av., (2) First-av., and (3) Second-av., for R.D.C. S.

**Mitcham.**—Making-up.—Of Middle-way, Bank-av., Portland-rd., for U.D.C. S.

**Oldham.**—Improvements.—To Florida-st.; Hermon-av.; passage off Florida-st. at rear of 101 to 139, Park-st.; passage leading from Middle-gate to Trough-gate, and lying between Hollins-rd. and Green-lane; passage lying between Green-lane and Trough-gate; passage off Scholes-st., lying between Yorkshire-st. and Rhodes-st.; passage leading from Grange-av. to Lacrosse-av., at gables of 72, Grange-av. and 1, Lacrosse-av.; Bar Gap-rd. (continuation), from centre of Smedley-st. for a distance of 36 lin. yds. in a north-easterly direction; passage off Orme-st., at gables of 59 and 61, Orme-st.; passage off Minton-st., at rear of 61-69, Orme-st.; passage at rear of 47-61, Minton-st.; passage off Minton-st., at rear of Grantham-st., for C.B. J. Ashurst, B.E. & S.

**Southall-Norwood.**—Improvements.—To widening and improvement, comprising some 900 yds. run of concrete carriageway and 130 yds. run of tar-macadam carriageway, with new granite kerb, artificial stone paving to footways, and other appurtenant works, in North-rd., for U.D.C. J. B. Thomson, E. and S.

**Southall-Norwood.**—Making-up.—Of Beresford-rd., Beaconsfield-rd (part of), Woodlands ro., Trinity-rd. (part of), Greenford-av. (part of), Church-rd., Marlow-rd., Warwick-rd., Windsor-rd., Salisbury-rd. (part of), for U.D.C. J. B. Thomson E. & S. Dep. £2 2s.

**Southall-Norwood.** — Widening. — Also improvement works of approaches to North Hyde bridge in connection with erection of new ferro-concrete highway bridge over Grand Junction canal, for U.D.C. J. B. Thomson, E. & S. Dep. £2 2s.

**Tralee.**—Sewerage.—Sewerage works at Bridge-st., Boherbee, Castle-st., Island of Geese, and Waterloo-lane, Tralee, for U.D.C. Town Surveyor.

**Ware.**—Making-up.—Private street, for U.D.C. S.

**Willesden.**—Paving.—Laying of 6,080 yds. super or thereabouts of wood paving in Edgware-rd., Cambridge-rd., Chamberlayne-rd. and Station-rd., for U.D.C. F. Wilkinson, engineer.

**Willesden.**—Drainage.—180 lin. yds. or thereabouts of 9-in. diameter stoneware pipe sewer, average depth 9 ft. 6 in. in open cut, in Abbey-rd., Willesden, and 560 lin. yds. or thereabouts of 15-in. diameter sewer, average depth 11 ft. in open cut, from Cumberland-av. across the grounds of Park Royal General Hospital to Barrets Green-rd., Willesden, together with manholes or other works connected with the same, for U.D.C. F. Wilkinson, engineer.

**Willesden.**—Road.—Making-up of Tatam-rd, for U.D.C. F. Wilkinson, Engineer.

**OCTOBER 24.**

**Mitcham.** — Drainage Work.— At Holborn Schools, London-rd., for Holborn B.G. C. J. Cross, clerk, Clerkenwell-rd., E.C.

**Stafford.**—Waterworks.—Laying and jointing of about 2,480 yds. of 6 in. dia. and 4,300 yds. of 4 in. dia. cast-iron pipes and special castings and other works in connection therewith, for T.C. W. Plant, Borough and Waterworks Engineer. Dep. £1 1s.

**OCTOBER 25.**

**St. Columb Major.**—Extension.—Sewer extension, consisting of laying 865 ft. of 9 in. and 740 ft. of 6 in. glazed ware sewer with manholes and incidental works at Trevone, Padstow, for R.D.C. Chas. E. Whitford, C. Dep. £1 1s.

**OCTOBER 27.**

**Deal.**—Sewerage.—Construction of about 1,728 lin. yds. of new surface water sewers, etc., varying from 9 in. to 18 in. dia., manholes, lampholes, gullies and distributing pipes, etc., for T.C. T. C. Golder, B.E. and S.

**OCTOBER 29.**

**Dartford.**—Making-up.—Certain roads and footpaths on Lowfield-st. housing estate, for U.D.C. S.

**Ellesmere Port.**—Making-up.—Of Compton-place and passage at rear of Princes-rd., for Ellesmere Port and Whitby U.D.C. T. W. Francis, clerk.

**Exmouth.**—Surfacing.—Main road improvements, for U.D.C. S. Hutton, E. and S.

**Glasgow.**—Extension.—Of Fulton-st., Anniesland, to join Knightscliffe-av., Knightswood, for Corporation. D. Stenhouse, T.C.

**Sandwich.**—Main.—200 lin. yds. of 3-in. diameter cast-iron water main, with necessary sluice valves, hydrants, etc., at Polder's-av., on Sandwood estate, for T.C. Wm. R. Moultrie, C.E., Acting Waterworks Manager. Dep. £2.

**Wimbledon.**—Making-up.—Of Hunter-rd., for B.C. B.E. & S.

**OCTOBER 30.**

**Beaconsfield.**—Making-up.—Of Furzefield-rd. and Burkes-rd. (section 2), for U.D.C. J. H. Crosby, E. and S.

**OCTOBER 31.**

**Merton and Morden.**—Making-up.—Of Sandringham-av. (approximate length 237 yds.), Poplar-rd., section III. (from The Circle to Crown-lane) (approximate length 477 yds.), for U.D.C. G. Jerram, E. and S. Dep. £1 each.

**NOVEMBER 6.**

**Carshalton.**—Making-up.—Of Stanley Park-rd., for U.D.C. R. S. Davey, S. Dep. £2.

## ENGINEERING, IRON AND STEEL

**OCTOBER 22.**

**Chesham.**—Tank.—Settlement tank, twelve sludge beds, pumping mains, small pumping station, pipe connections and other works at sewage works, for U.D.C. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

**Hull.**—Bridge.—Steel opening bridge over Hedon Haven, at point where New Paull-rd. crosses the Haven and on foundations to be erected by other parties, for T.C. City E. Dep. £1 1s.

**OCTOBER 23.**

**London.**—Steelwork.—For 7 deck span girder bridges and 1 through span girder bridge (150 ft. span), for Bengal-Nagpur Railway Co., Ltd. R. C. Volker, secretary, 132, Gresham House, Old Broad-st., E.C.2.

**Southall-Norwood.**—Bridge.—New highway bridge over canal at North Hyde, for U.D.C. J. B. Thomson, E. & S. Dep. £2 2s.

**OCTOBER 24.**

**London.**—Steelwork.—251 tons structural steelwork for millwright shop, for Madras and Southern Mahratta Rly. Co., Ltd. Directors, 25, Buckingham Palace-rd., S.W.1.

**OCTOBER 25.**

**Johannesburg.**—Steelwork.—For South African Railways and Harbours Committee. Department of Oversea Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 6752.)

**Radnor.**—Widening.—(1) Reconstruction and widening of Rhayader bridge, over River Wye, at Rhayader, and (2) improvement of corners near Hendre Farm, 3½ miles east of Rhayader, for C.C. T. W. Wishlade, County Surveyor & Architect. Dep. £2 2s. each.

**OCTOBER 29.**

**Kingsclere.**—Bridge.—Bridge at Courseford, for R.D.C. S.

**Margate.**—Widening.—Of St. Peter's-rd. railway bridge, for T.C. E. A. Borg, B.E. & S., 13, Grosvenor-place. Dep. £2 2s.

**OCTOBER 30.**

**Tregaron.**—Water Supply.—Cement concrete covered service reservoir, having a capacity of 60,000 gallons; providing and laying about 1,360 yds. of 4 in. and 4,450 yds. of 3 in. cast-iron water mains, together with works of collection at source

of supply, and including necessary air valves, sluice valves, hydrants, and other appurtenant works, for R.D.C. Thomas & Morgan & Partners, engineers to C., 23, Gelliwastad-rd., Pontypridd. Dep. £5.

**DECEMBER 3.**

**London.**—Bridge.—New bridge with steel superstructure, granite-faced concrete piers founded in caissons and granite faced concrete abutments, at Lambeth, for L.C.C. Chief Engineer of Council, Old County Hall, Spring-gardens, S.W.1. Dep. £20.

## Auction Sales Tenders, etc.

**OCTOBER 23.**

**London.**—Henry Butcher, Hall & Co., will sell, by order of Messrs. Lole & Co., Ltd. (expiration of lease), in lots on the premises, building plant and material, woodworking machinery, office furniture. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

***Southampton.**—Leopold Farmer & Sons, in conjunction with Richard Austin & Wyatt, will sell by order of Messrs. John Christopher, Ltd., having sold the property in lots on the premises, Totton Saw Mills, Southampton. Woodworking Plant and Machinery, 8 Cart Horses, Lorries, etc. Auctioneers, R. A. & W. Bishops, Waltham, Hants; L. F. & Sons, 46, Gresham-st., London, E.C.2.

**OCTOBER 25.**

***Littleton-on-Sea.**—Geo. Nichols, Young, Hunt & Co. will sell, by order of the Liquidator, Arthur Collins, F.C.A., at Demerara House, Cotston-av., Bristol, Freehold Property, about 27 acres. Auctioneers, 28, Baldwin-st., Bristol.

**OCTOBER 31 and Following Day.**

**London.**—Joseph Hibbard & Sons will sell without reserve. By order of the Trustee, F. H. Agar, F.C.A., re Rich & Co., in bankruptcy, upon the premises, 36, Great Pearl-st., Commercial-st., and 9, Tudor-st., Hackney. Stock of Timber, Glass, Freehold Timber Yard, etc.—Auctioneers, 15, Newington Green, N.16.

## Public Appointments

**OCTOBER 22.**

**London.**—Temporary First-Class Architectural Draughtsman in the Department of the Engineer-in-Chief required by the M.A.B. Clerk to the M.A.B., Victoria-embankment, E.C.4.

**Lytham.**—Clerk of Works required for proposed girls' school at Lytham. T. Taliesin Rees & Richard Holt, FF.R.I.B.A., 64, Rodney-st., Liverpool.

**OCTOBER 24.**

**Southampton.**—Assistant Qualified Surveyor (Grade 1a), required in the County Architects' Department, by the Southampton C.C. A. L. Roberts, F.R.I.B.A., City Architect, The Castle, Winchester. (Original testimonials will not be returned.)

**OCTOBER 26.**

***Croydon.**—Temporary Junior Assistant required by the Croydon Education Committee. R. B. Morgan, Education Officer, Education Office, Katharine-st., Croydon.

**Derby.**—Borough Architect required by the Derby Corporation. Town Clerk, Derby.

**Derby.**—Building Inspector required by the Derby Corporation. Town Clerk, Derby.

**OCTOBER 27.**

***Bradford.**—Assistant Lecturer, in the Department of Civil Engineering, Architecture, and Building, in the College. Director of Education, Town Hall, Bradford.

**OCTOBER 29.**

***Hull.**—Temporary Architectural Assictant required by the City Council in the City Architect's Department. The City Architect, Guildhall, Hull.

**Surrey.**—Architectural Assistant required in the Borough Engineer & Surveyor's Department by the Richmond B.C. Edwin M. Neave, T.C., Town Hall, Richmond, Surrey.

**NOVEMBER 10.**

***Bradford.**—Quantity Surveyor required in the City Architect's Department by the Bradford City Council. City Architect, Town Hall, Bradford.

**NO DATE.**

***London.**—Architectural Assistants Required.—H.M.O.W., Storey's-gate, Westminster, S.W.1.

***Nigeria.**—Required by the Government of Nigeria, for the Kano Water Works Construction Scheme M/1090. Four miner Gangers (Foremen of Works) M/1095. Foreman of Works (Reservoir). Apply at once by letter, Crown Agents for the Colonies, 4, Millbank, S.W.1, quoting reference number.

## CONTRACTS PLACED

**Swansea.**—BANK.—The Westminster Bank, Ltd., have placed a contract with Messrs. Collins and Godfrey, The Cross, Tewkesbury, Glos., for the erection of a proposed new branch in Wind-street. The plans have been prepared by Mr. P. J. Williams, L.R.I.B.A., Bank-chambers, Heathfield-street.

**Rayleigh.**—HOTEL.—Messrs. W. Jay (Westcliff), Ltd., Hamlet Court-road, Westcliff-on-Sea, have secured the contract for the building of the proposed Weir Hotel, on the Southend Arterial-road. The cost is estimated at £13,000. The architect is Mr. O H. Cockrill, A.R.I.B.A., 35, Weston-chambers, Weston-road, Southend-on-Sea.

# PROPOSED NEW BUILDINGS & OTHER WORKS*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

**Acerington.**—L.M. & S. propose improvements to station and booking-office.—M.H. sanction 49 houses on Willow-lane site at £18,100.

**Alford.**—Houses.—District Committee proposes 4 harled wooden houses on property of Robert Ross.

**Ashton-under-Lyne.**—An isolation hospital is proposed at £18,000.

**Audenshaw.**—Provisional plans are approved for secondary school off Stamford-rd.

**Barnet.**—B.G. are to erect new mortuary at £1,880.

**Birmingham.**—E.C. recommend, subject to approval of B. of E. and M.H., extension and improvement of George Dixon Secondary School premises, be approved, and instructed to borrow £39,450.—B. of E. are to be asked to sanction acquisition of approximately 13 acres of land at corner of Slade-rd. and Marsh-hill, Erdington, as site for Secondary School for Boys.—Subject to approval of B. of E., scheme for enlargement of Moseley-rd. School for Deaf Children and provision of accommodation for partially blind children be approved.—Watch Committee are to accept tender for erection of a sub fire-station, Pershore-rd. South, at £18,973, and to borrow £21,677 to cover cost of scheme.—Watch Committee are to complete purchase of freehold property, 113, Hunter's-rd., Handsworth, for £550, and to borrow £650 to cover cost.—Tender for erection of two cottages in West Heath-rd., Northfield, is to be accepted, at £1,095.—B. of E. approved scheme at £1,328 for caretakers' houses at Yarnfield-rd. and Starbank-rd. schools.—E.C. obtained B. of E.'s approval to site in Marsh-hill, Upper Witton, for new elementary school.—Subject to approval of M.H., scheme of reconstruction and alteration to portion of hospital premises, College-rd., Perry Common, transferred as site for fire-station be approved

**Bournemouth.**—Corporation is to purchase Red House, Belle Vue-rd. for police residential purposes. Alterations are to be carried out at £1,000.

**Bowland.**—West Riding Highways Committee are to spend £130 in rebuilding a length of 15 yards of the retaining wall on north-west approach of Slaidburn bridge.

**Bradford.**—Tramways Committee passed resolution authorising application to M.T. for sanction to borrow £29,500 required for erection of central motor-omnibus garage in Ludlam-st., and City Architect is to obtain tenders for carrying out of work.

**Bingley.**—West Riding E.C. accepted tenders, amounting to £24,079 19s. 9d., for extensions at Grammar school.

**Blackheath.**—Judges passed plans for alterations to Crown (beerhouse), New Cross-rd., New Cross (licensee, F. Walton); Prince Alfred (beerhouse), 44, St. John's-rd., Deptford (A. J. V. Collett); Rising Sun (beerhouse), Dennett's-rd., Deptford (Thos. R. Freeman); Brockley Jack, 410, Brockley-rd., Brockley (H. A. Dipple); Duke of Edinburgh, 94, Wells-rd., Sydenham (Wm. Classen); White Hart (beerhouse), High-st., Eltham (Elizabeth Harriett Jeffery); Horse and Groom (beerhouse), High-st., Plumstead (L. Sweeting); Anglesea Arms, New-rd., Woolwich (Chas. Edwin Langham); Three Crowns, High-st., Woolwich (H. Wm. O'Brien); Barley Mow, Royal Hill, Greenwich (Wallis Yate).

**Bradford.**—T.C. passed plans for houses:—A. & J. Chippindale, 10, Thorn-lane and Thorn-av.; F. Wray, 28, Moore-av. and Lindley-drive; J. A. Groves, 10, Briarwood-crescent; F. P. Leach & Sons, Ltd., 4, St. Leonard's-grove; Foster Bros., 4, Duchy-drive and 4, Lynton-drive; H. Proctor, 8, High Park-drive and -crescent; Foster Bros., 6, Lynton-drive; T. E. Feather, Willowfield-crescent; J. E. Keighley, 4, Cyprus-drive; Rochester & Ingham, 4, Rooley-lane; C. S. Hiley, 4, Elder-st.; S. Priestley, 3, Hawes-mount; A. Dickinson, 4, Victoria-drive; T. E. Feather, 6, Willowfield-crescent.

**Brierley Hill.**—Council proposes to erect about 400 houses, and M.H. has sanctioned 120 as a first instalment.

**Brighton.**—E.C. is to buy site at Vardean for school at £65,000 for 550. T. Simpson & Son, architects, 16, Ship-st.

**Calverley.**—West Riding Highways Committee are to expend a sum of £29,832, in addition to sum of £138,757 previously approved, in constructing a new road and bridges in Calverley, Farsley and Horsforth Urban Districts.

**Caterham.**—M.H. has sanctioned £31,415 as provisional sums for engineering, and acceptance of tender of Wilson, Lovatt & Sons, Ltd., for extension of Queen Mary's Hospital for Children.

**Caterham.**—M.A.B. are to make application to M.H. for £224,288 on extension of Queen Mary's Hospital for Children. Ministry sanctioned £1,359 in respect of provision of accommodation for visitors at the hospital.—U.D.C. passed plans:—8 cottages, Banstead-rd., and 8 cottages, Coulsdon-rd., W.; cottage; additions, Council Depot, Park-rd., U.D.C.; 4 maisonettes, Coulsdon-rd., W. Cottage; 8 cottages, Birch-av., W. Butler.

**Chelmsford.**—F. Wykeham Chancellor, F.R.I.B.A., 19, Duke-st., has planned business premises, etc., in Springfield-rd.

**Darlington.**—Plans approved by T.C.:—D. Crawford, alterations to Havelock Arms, Haughton-rd.; Woodside Estates, Ltd., 4 houses, Woodvale-rd.; J. E. Chilton, 8 bungalows, The Gateway, Eastbourne; W. Lyall, 6 houses, Davison-rd.

**Dartford.**—Kent E.C. approved proposals by U.D.C. for acquisition of brewery site, Market-st., for proposed new Dartford Technical College.

**Dartford.**—M.A.B. recommend that approval be given, subject to sanction of M.H., to extension of industrial needlerooms at Darenth Training Colony, at £9,625.

**Darton.**—West Riding C.C. recommend, subject to grant from Central Funds, and to necessary loan sanction being obtained, Highways Committee be authorised to expend £1,400 in reconstructing Haigh bridge which carries Barnsley and Grange Moor main road over the River Dearne.

**Ecclesfield.**—Tenders, amounting to £33,110 6s. 3d., have been accepted by West Riding E.C. for erection of Ecclesfield Secondary school.

**Emley.**—West Riding E.C. recommend that Council school be enlarged by provision of three new classrooms and combined special subjects room, at £5,250.

**Epsom.**—U.D.C. passed plans:—Additions to Cottage Hospital, Alexandra-rd., for Hospital Committee; two pairs of houses in Copse Edge-av., for H. H. & F. Roll; 3 shops at Horton Footpath, off The Chase, for H. Longhurst.

**Finchley.**—U.D.C. passed plans:—22 houses, Creighton-av., E. Cansick; 2 garages, 45 and 47, Fortis-green, J. P. Thorpe & W. J. Cruwys; 12 flats, High-rd. and Creighton-av., East Finchley, Miss R. A. Harrington; 31 houses, Brentway and Fursby-av., P. D. Walker; 15 houses, North Circular-rd., between Briarfield-av. and Rosemary-av., West Streatham Building Co., Ltd.

**Glass Houghton.**—For enlargement of Glass Houghton, Aston-rd., Council school, West Riding E.C. accepted tenders amounting to £7,976 11s. 2d.

**Godalming.**—T.C. have under consideration erection of 120 houses in Binscombe-lane.

**Harrogate.**—Governors of the secondary school propose new school buildings.

**Harrogate.**—Scheme for erection of shelter and new bandstand in Valley-gardens been submitted to T.C. Estimated cost of building is £10,500.

**Hebden Bridge.**—Plans preparing for post office and telephone exchange on a central site.

**Hemsworth.**—The West Riding C.C. are to spend £105 on repairs to burr wall, adjoining road between Robin Hood's Well and Park Nook, Skelbrook.

**Halifax.**—C.B. passed plans—Helliwell & Shaw, 3 pairs semi-detached houses, Burnley-rd.; H. Fletcher & Co., Ltd., reconstruction of stables, etc., into warehouse, Bowling Dyke Dyeworks; E. Richardson, 4 pairs semi-detached houses, 4, 6, 8, 10, 12, 14, 16, 18, Crow Wood-park; H. White, 8 garages, St. Mary-st.

**Halifax.**—B.G. approved plans submitted by H. P. Williams, architect, for extensions to St. Luke's Hospital, at £12,463.

**Hove.**—T.C. passed plans:—E. Gladman & Son, 10 semi-detached houses and garages, Portland-av.; A. C. Udney, for Dubarry Perfume Co., factory, Hove Park-villas; D. H. Cooper, 4 detached houses and garages, Bishop's-rd.; A. Chadwell, amended lay-out of garages, Westbourne-place; W. F. Andrews, for Mr. E. Davis, 40 semi-detached houses, Middleton-av.; J. J. Cooper, garages, Milnthorpe-rd.

**Leavesden.**—M.H. approved scheme by M.A.B. for modernisation of Leavesden Mental Hospital, the provision of a covered way from nurses' old home to corridor adjacent to Block H.

**Leeds.**—North, Robin & Wilsdon, architects, of Maddox-st., W., are replanning Leeds "Pygmalion" as stores for C. & A. Modes, Oxford-st., W.

**London (Bermondsey).**—B.C. passed drainage plans: H. Kent, 31, Beacon-rd., Hither Green, S.E.13, for Spillers & Co., factory, 1, Jacob-st.; R. Mansell, 17, Grant-rd., Croydon, for B.G., for Bermondsey and Rotherhithe Hospital, Lower-rd. S.E.16; Stock, Page & Stock, 18, St. Thomas's-st., for Anning & Cobb, 15, Arthur-st., E.C.4., warehouse, Stoney-lane, West Side, Tooley-st.

**London (Camberwell).**—B.C. recommend supplemental estimate of £110, cost of painting the railings in New-rd., Honor Oak, other than those abutting on the New Cemetery.—Council recommend alterations to mortuary and provision of modern equipment be carried out by B.E. and S., at £515.—Council also recommend painting of portions of railings under control of Public Service Committee at New Cemetery and the New Ceme-

* See also our List of Contracts, Competitions, etc.

tery-rd. be carried out by B.E. and S., at £204.—Plans passed:—W. & E. Hunt, rebuilding of premises at 150, Rye-lane, abutting on Choumert-rd.; Murrell & Pigott, garages at Grove Hill House, Grove-park; E. A. Stone, rebuilding of 593-613, Old Kent-rd., abutting on Sandgate-st.; W. R. Stacey, garages upon site out of S. side of Surrey-rd.; A. W. Collins, lock-up garages at 64-68, Queen's-rd.

**London (Fulham).**—B.C. recommend £1,081 for provision and fitting up of new sub-station in or near to Barton-st., West Kensington.—Council also recommend £1,400 for sub-station on strip of land belonging to Council in Rigault-rd., and for laying of an additional cable from High-st. to new sub-station.

**London (Shoreditch).**—B.C. recommend that alteration of Shoreditch High-st. by removal of existing underground convenience adjacent to Shoreditch Church to a new site between Shoreditch Church and Calvert-av.

**London (Southwark).**—M.A.B. received approval from M.H. to installation of electric light at The Hostel, at £500, and at Southwark Casual Ward, at £180.

**London (Stepney).**—B.C. received provisional sanction from M.H. to a loan of £60,126 for the provision of public baths on Mile End-rd. site.—Plans passed:—L. G. Ekins (on behalf of Co-operative Wholesale Society, Ltd.), erection of a warehouse addition at Leman-st. to abut upon Rupert-st. and Leman-passage.

**London (Wimbledon).**—M.A.B. recommend, subject to approval of M.H. to provision of isolation accommodation at Fountain Mental Hospital by conversion of ward 1, at £2,525.

**Lowestoft.**—C.B. passed plans:—Trustees Wesleyan Church, classroom, Wesleyan Church, Lorne Park-rd.; Marks & Spencer, extensions, 84, London-rd.

**Meriden.**—R.D.C. passed plans:—6 houses, at Marston Green, for Perks Bros.; 20 houses, at Castle Bromwich, for A. Francis; 10 houses, at Castle Bromwich, for A. Francis; 4 houses, at Marston Green, for S. Heatley; 8 houses, at Bickenhill, for H. H. Hailstone; extensions to exhibition buildings, at Castle Bromwich, for British Industries Fair.

**Middlesbrough.**—T.C. passed plans:—3 houses and lock-up shop, Parliament-rd., at corner of Outram-st., for L. H. Gillis.

**Middleton-in-Wharfedale.**—West Riding C.C. recommend that floors of kitchen and dining room block at Sanatorium be reconditioned with tiles, at £110.

**Norton.**—Three additional rooms are to be erected at new school in course of erection, at £2,650, for West Riding E.C.

**Oldham.**—Plans been passed for A. Redfern & Sons, 5 houses, Burlington-av., by C.B.

**Ossett.**—West Riding E.C. recommend that additional heating arrangements be carried out in connection with extensions at Grammar school, at £346.

**Oxford.**—T.C. passed plans: Morris Motors (1926), Ltd., 4-bay shop and press-shop at works at rear of Woodstock-rd., and bridge and retaining walls to be constructed over canal at rear of Woodstock-rd., giving access from their works to sports ground; Management Committee, The Warneford, Oxford, additions to premises known as St. Gabriels', Hill Top-rd.

**Portsmouth.**—Air Ministry will carry out £65,000 enlargements at Cottewater Air Base. Ministry's Architects' Dept., Adastral House, Kingsway, W.C.

**Preston.**—C.B. passed plans:—G. H. Broadbent, alterations, 58, Fishergate-hill; A. C. M. Lillie, for Royal Infirmary, offices, Deepdale-rd.; B. Crabtree, 19 houses, Sheffington-rd.; J. Masheter, 90 houses, Carlton-drive, Malvern-rd., Malvern-av., Boulevard; H. W. Cottam, warehouse, Frenchwood-av.; A. Bamford, 10 houses, Woodplumpton-rd.

**Redcar.**—T.C. is to buy 40 acres on east side of the borough for housing developments.

**Rotherham.**—Notice been received by West Riding E.C. of C.B.'s intention to erect public elementary school, to accommodate 1,200 children, on site in Cranworth-rd.

**Sale.**—£14,000 extensions to Sale County High School for Girls are approved. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate-chambers, Chester.

**Salford.**—City Council passed:—school in Kent-st., Broughton, for Sharp & Cowburn, architects, 40, King-st. South, Manchester; alterations to "Scala" Cinema, Ford-lane, Pendleton, for Charles Swain & Partners, architects, 53, King-st., Manchester.

**Salisbury.**—T.C. passed plans:—6 houses, Australian-av., for G. Way; shop, Downton-rd., for H. J. Patrick; garages at rear of premises, Catherine-st., for Milward & Sons; 6 houses, Empire-rd., for W. Forder & Sons.

**Sheffield.**—E.C. propose to provide a new public Elementary school at Woodhouse Mill, to accommodate 260 children.—Committee also intend to erect a new public elementary school for about 1,700 children at Hukin-lane.

**Sheffield.**—The Brightside & Carbrook Co-operative Society, Ltd., Attercliffe, on site at Longley housing estate, Sheffield, propose branch premises. Plans by the Architect's Department, C.W.S., Ltd., 113, Corporation-st., Manchester.

**Skipton.**—Scheme for carrying out extensions at Grammar school, at £18,900, been approved by West Riding E.C.

**Stocksbridge.**—Caretaker's house is to be erected for West Riding E.C., at new school, at £600.

**Stockport.**—Wrathmell & Blackshaw, LL.R.I.B.A., architects, Queen's-buildings, are preparing plans for large business block in Chestergate, for the Stockport Industrial and Equitable Co-operative Society, Ltd.

**Stourton (Leeds).**—Tenders are invited for offices at Haigh Park-rd. for Messrs. Concrete, Ltd. C. A. Castelow, architect.

**Surbiton.**—U.D.C. passed plans:—112 houses (Princes-av. 48, Hamilton-av. 34, Kingsmead-av. 30); Thorogood, Bros. & Son; 13 houses, Villiers-av., Baverstock & Sons; 4 houses, Warren-drive, D. H. Brand; 10 houses, Raeburn-av., B. Godfrey; 2 houses, Glenbuck-rd., J. Lawson; 4 houses, Red Lion-rd., S. Fulcher; 4 houses, Lenelby-rd., W. Christmas.

**Swansea.**—F. W. Woolworth & Co., Ltd., Victory House, Kingsway, W.C., are to build emporium. Plans by company's architect, W. Priddle.

**Swindon.**—T.C. passed plans:—R. J. Beswick & Son, 6 houses, Scarborough-rd.; Bishop & Fisher, extension to factory, Newcastle-st.

**Thurnscoe.**—U.D.C. have approved plans for new Town Hall and Municipal Offices at £15,000.

**Torquay.**—M.H. intimated that he is prepared to sanction raising of loan to defray cost of extending Pier Concert Hall. B.E. to invite tenders for work.

**Uxbridge.**—R.D.C. are to negotiate for housing sites at Cowley, Hillingdon and West Drayton; 32 houses on Harefield site have been approved. E. E. T. Bolton, surveyor.

**Wakefield.**—West Riding E.C. recommend that General Purposes Committee be authorised to adapt premises known as "The Gables," so as to convert same into club house for members of staff, at £2,046.

**Wellingborough.**—Preliminary plan, showing lay-out for houses in Croyden-rd. been before Housing Committee of U.D.C., and negotiations are being entered into for purchase of land. Housing Committee approved lay-out of land on Finedon-rd., and given instructions for preparation of plans and specifications for 26 houses.

**West Bromwich.**—T.C. propose 2 blocks of flats on Tantany estate. Also rehousing scheme on 452 acres in Oak-lane.

**Woodhouse.**—West Riding E.C. recommend hot water system be installed at Secondary school, at £150.

**Whitwood.**—West Riding E.C. accepted tenders, amounting to £29,120, for erection of Whitwood Mining and Technical Institute.

**Wigan.**—T.C. proposes 146 houses—by Borough Engineer—on Daylight Farm site. Also 160 on Giant's Hall site.

**Worcestershire.**—C.C. decided to construct a retaining wall, at £2,000, in place of a defective sandstone wall supporting main road near the river Teme at Stipers Hill.

**Worthing.**—T.C. passed plans:—6 houses to front First-av., F. Sandell & Sons; 29 lock-up garages, ladies' and gentlemen's lavatories and office abutting the railway at corner of Southcourt-rd. and Eastcourt-rd., for F. Twine per J. B. Lund; 42 lock-up garages, 2 large garages, stores, and ladies' and gentlemen's lavatories, Heene-rd., opposite end of Chaucer-rd., S. W. Phillips & Co.; 5 lock-up garages and workshop, South-st., Tarring, for F. C. Light per E. J. Love; alterations to premises, the Steyne Hotel and fronting Marine Parade, for J. O. Kordina per A. T. W. Goldsmith; 6 houses and garages to front Sandwich-rd. and Dover-rd., for W. Brooks per J. E. Lund; 8 houses, Shandon-rd., for E. J. Woodward.

**Yeadon.**—U.D.C. propose to invite tenders for mortuary.

**Yeovil.**—R.D.C. are to seek sanction to purchase sites in various districts for erection of 120 houses.

**York.**—Corporation received sanction to £20,753 for 50 houses on Tang Hall estate.

**York.**—T.C. passed plans:—H. C. DeBurgh, 6 houses, Finsbury-av.; Managers, St. Wilfred's school, additions, Monkgate; W. E. Puckering & Co., 6 houses, Linton-st.


**ESTIMATING ON RIGHT LINES**

Everyone whose business it is to quote for building work should master the principles upon which estimating is based. These principles are clearly explained and illustrated in

**'HOW TO ESTIMATE'**

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a unique and invaluable work which is not excelled in thoroughness or in scope by any similar book known.

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# TRADE NEWS

**Accurate Light Measurement.**

Correct illumination is an essential to commercial efficiency, and now that this is becoming generally recognised the need is arising for an instrument which will efficiently register the standard of illuminating on any particular spot. For this purpose, Philips Lamps, Ltd., 145, Charing Cross-road, W.C.2, have introduced a novel foot-candle meter which gives measurements in the unit commonly employed, viz., foot-candles. The instrument is of simple construction, using a lamp operated by two 4½-v. flash-lamp batteries, run in series; this is placed under an accurately graded scale and lights up when a small button is pressed; the meter is then placed on the locality it is desired to measure and the illumination in foot-candles can be read on the scale. The foot-candle meter is of sturdy manufacture and is a well-made and reliable instrument. Owing to its accuracy, simplicity of operation and portability, it should appeal to the man who wishes to get the best from his lighting.

**A Jubilee Celebration.**

This year the firm of O'Brien, Thomas & Co., 17/18, Upper Thames-street, E.C.4, celebrates the jubilee of its foundation. In commemoration of the event the whole of the London staff was entertained to an outing on Saturday, September 29, at Tunbridge Wells. The programme consisted first of a luncheon at the Wellington Hotel, at which the entire office and warehouse staff of Thames-street was present, including Mr. Henry O'Brien, the founder, his three sons, Mr. E. H. Howard and Mr. A. P. Harrop, the other two partners. After lunch Mr. O'Brien welcomed the employees of the firm. He spoke of the early days of the firm, when the staff consisted of himself, his late partner, Mr. Thomas, and Mr. Jack Sears, who remained for many years afterwards as foreman in the warehouse. He mentioned the great pride he felt in being present at the jubilee of the firm, and took the opportunity of thanking the staff for its long and loyal devotion to the firm. Mr. C. S. Clifford, who with over 41 years' service is the oldest employee, thanked Mr. O'Brien on behalf of the staff for his hospitality and remarked what a great pleasure it was to them all that he was able to be with them on such an occasion. A cricket match then followed, "Married" versus "Single," resulting in a victory for the "Married" by 6 runs. Tea was served in the hotel afterwards, and the party finally left for London by motor-coaches after a memorable and enjoyable day.

**Travelling Radiator Exhibit.**

The motor travelling caravan fitted with a working "Ideal Cookanheat" installation and put on the road by the National Radiator Co., Ltd., of Hull, will demonstrate as follows:—October 20-27, Wood Green Entrance, Alexandra Palace.

**Insulating Quilt: A New Company.**

Messrs. Huntley & Sparks, the suppliers of Cabot's sound-deadening and insulating quilt, "Rigifix" fittings, and other products, have just become a limited company. They inform us there will be no change in their personnel and that all inquiries and orders will continue to receive the same prompt and careful attention as in the past.

**An Appointment.**

The appointment of Major L. A. Leech as general manager of Millars' Machinery Co., Ltd., is announced. Major Leech has been with Millars' Machinery as secretary for some considerable time.

**Floor Clips.**

In the large block of flats at 43, Portman-square, for which the architects were Messrs. Joseph and the contractors were Messrs. Higgs & Hill, Ltd., between 35,000 and 40,000 "Bull Dog" floor clips were used.

# PRICES CURRENT OF MATERIALS.*

**Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.**

## BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

| | £ s. d. |
|---|---|
| Best Stocks | 4 5 6 |
| Second Hard Stocks | 3 19 6 |

Per 1,000. Delivered at London Goods Stations.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| Flettons, at King's Cross | 2 12 3 | Best Blue Pressed Staffs | 9 5 0 |
| Do., grooved for Plaster ... | 2 14 3 | Do. Bullnose ... | 9 15 0 |
| Do., Bullnose... | 3 7 3 | Blue Wire Cuts | 7 5 0 |

Best Stourbridge Fire Brick :—
2½ in. ..... 8 11 0 3 in. ..... 10 3 0

GLAZED BRICKS—

| | | | |
|---|---|---|---|
| Best White Ivory, and Salt Glazed Stretchers ... | 1 0 0 | D'ble Str'tch'rs | 29 10 0 |
| Headers ..... | 20 10 0 | D'ble Headers... | 26 10 0 |
| Quoins, Bullnose and 4½ in. Flats ..... | 27 10 0 | One Side and two Ends ... | 30 10 0 |
| | | Two Sides and one End ..... | 31 10 0 |
| | | Splays, and Squints ..... | 28 0 0 |

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

### BREEZE CONCRETE SLABS.

Delivered London

| | s. d. | | s. d. |
|---|---|---|---|
| 2 in. per yd. super. | 1 11 | 3 in per yd. super | 2 9 |
| 2½ in. ,, ,, | 2 4 | 4 in. ,, ,, | 3 6 |

| | s. d. | |
|---|---|---|
| Thames Ballast ..... | 9 9 | per yd. |
| Pit Sand ..... | 12 0 | ,, ,, |
| Thames Sand ..... | 12 6 | ,, ,, |
| Best Washed Sand..... | 12 6 | ,, ,, |
| ¾ in. Shingle for Ferro-Concrete ..... | 12 0 | ,, ,, |
| ¼ in. ..... | 12 6 | ,, ,, |
| ¾ in. Broken Brick..... | 11 6 | ,, ,, |
| Pan Breeze ..... | 8 0 | ,, ,, |

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.
Best Portland Cement. British.
Standard Specification. Test £2 6 0 to £2 8 0
3/6 alongside at Vauxhall in 80-ton lots.

| | £ s. d. |
|---|---|
| Ferrocrete per ton extra on above ..... | 0 7 6 |
| Super Cement (Waterproof) ..... | 3 16 0 |
| Roman Cement ..... | 8 15 0 |
| Parian Cement..... | 5 15 0 |
| Keene's Cement, White ..... | 5 15 0 |
| ,, ,, Pink..... | 5 10 0 |
| Plaster, Coarse, Pink ..... | 3 0 0 |
| ,, ,, White ..... | 3 12 6 |
| ,, Fine ..... | 5 12 0 |
| Sirapite, Coarse ..... | 3 9 0 |
| ,, Finish ..... | 3 17 0 |
| Grey Stone Lime..... | 2 10 9 |
| Chalk Lime ..... | 2 10 9 |
| Best Ground Blue Lias Lime ..... | 1 17 6 |
| Hair ..... per cwt. | 2 2 6 |
| Granite Chippings ..... | 1 12 0 |

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

## STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 10

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE.—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube..... 4 5½
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.—
Delivered at any Goods Station, London. s. d.
Random blocks from 10 ft. and over P. ft. cb. 14 0
Sawn two sides ..... ,, 22 6
Sawn three or four sides ..... ,, 27 6

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London.
6 in , sawn two sides landings to sizes (under 30 ft. super).....Per ft. super 5 6
6 in. rubbed two sides, ditto ..... ,, 6 0
3 in. sawn two sides slabs (random sizes) ,, 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,, 1 6½
1½ in. to 2 in. ditto, ditto ..... ,, 1 3½

HARD YORK—
Delivered at any Goods Station, London.
Scappled random blocks ..... Per ft. cube 6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super 5 1½
6 in. rubbed two sides, ditto ..... ,, 6 1½
4 in. sawn two sides slabs (random sizes) ,, 2 1½
3 in. ditto ditto ,, 2 10
2 in. self-faced random flags.....Per yd. super 8 8

## CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s.0d.

## WOOD.

GOOD BUILDING DEAL.

| Inches. | per stan. | Inches. | per stan. |
|---|---|---|---|
| 4 × 11 ..... | £30 0 | 3 × 6 ..... | £21 0 |
| 4 × 9 ..... | 26 0 | 3 × 11 ..... | 25 0 |
| 4 × 8 ..... | 25 0 | 2 × 11 ..... | 26 0 |
| 4 × 7 ..... | 23 0 | 3 × 9 ..... | 24 0 |
| 3 × 8 ..... | 22 0 | 2½ × 9 ..... | 24 0 |
| 3 × 7 ..... | 22 0 | 3 × 4½ ..... | 21 0 |
| 2½ × 7 ..... | 21 0 | 3 × 4 ..... | 21 0 |

PLANED BOARDS.

| | | | |
|---|---|---|---|
| 1 × 11 ..... | £30 0 | 1 × 9 ..... | £28 0 |

PLAIN EDGE FLOORING

| Inches. | per sq. | Inches. | per sq. |
|---|---|---|---|
| ⅝..... | 18/- | 1¼..... | 30/- |
| ¾..... | 21/- | 1½..... | 34/- |
| 1 ..... | 24/- | | |

TONGUED AND GROOVED FLOORING

| Inches. | per sq. |
|---|---|
| 1 ..... | 24/- |
| 1¼..... | 30/- |
| 1½..... | 34/- |

MATCHING (BEST).

| Inches. | per sq. |
|---|---|
| ⅝..... | 16/6 |
| ¾..... | 19/- |
| 1 ..... | 24/- |

| Ins. BATTENS. | s. d. |
|---|---|
| ¾ × 2.....per 100 ft. | 2 6 |

SAWN LATHS. s. d.
Per bundle ..... 2 6

1" AND UP THICK.

| | £ s. d. | £ s. d. |
|---|---|---|
| Dry Austrian Wainscot, per ft. cube ..... | 0 16 0 | to 0 18 0 |
| Dry American and/or Japanese Figured Oak, ft. cube..... | 0 14 0 | to 0 15 0 |
| Dry American and/or Japanese Plain Oak, ft. cube ..... | 0 10 0 | to 0 13 0 |
| Dry sq. edged Honduras Mahogany, ft. cube..... | 0 15 0 | to 0 18 0 |
| Dry Log cut Honduras Mahogany, ft. cube..... | 0 16 0 | to 1 1 0 |
| Dry Cuba Mahogany, ft. cube... | 1 1 0 | to 1 10 0 |
| Dry Teak, ft. cube ..... | 0 13 0 | to 0 15 0 |
| Dry American Whitewood, ft. cube ..... | 0 10 0 | to 0 14 0 |
| Best Scotch Glue, per cwt. ..... | 4 10 0 | to — |
| Liquid Glue, per cwt. ..... | 4 7 0 | to 5 10 0 |

## SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| 24 by 12 ..... | 32 18 4 | 18 by 10 ..... | 18 12 11 |
| 22 by 12 ..... | 29 17 11 | 18 by 9 ..... | 16 9 2 |
| 22 by 11 ..... | 27 14 2 | 16 by 10 ..... | 15 12 6 |
| 20 by 12 ..... | 26 5 0 | 16 by 8 ..... | 12 3 9 |
| 20 by 10 ..... | 22 10 0 | | |

## TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

| | |
|---|---|
| Best machine-made tiles from Broseley or Staffordshire district..... | 5 7 6 |
| ditto hand-made ditto ..... | 5 17 6 |
| Ornamental ditto ..... | 6 2 6 |
| Hip and valley tiles (per dozen) { Hand-made ..... | 0 9 6 |
| { Machine-made ..... | 0 9 0 |

## METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

| | £ s. d. |
|---|---|
| R.S. Joists, cut and fitted ..... | 12 10 0 |
| Plain Compound Girders ..... | 14 10 0 |
| ,, Stanchions ..... | 16 10 0 |
| In Roof Work ..... | 19 10 0 |

MILD STEEL ROUNDS.—To London Station, per ton

| Diameter. | £ s. d. | Diameter. | £ s. d. |
|---|---|---|---|
| ½ in. ..... | 12 0 0 | ⅝ in. to ½ in. | 10 15 0 |
| ⅜ in. ..... | 11 0 0 | ⅝ in. to 2½ in. | 10 10 0 |

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

| | Tubes. Wrought Mild Steel. | Tubes. Genuine Staffs. Iron. | Fittings. ⅛ in. and under. | Fittings. Over ⅛ in. | Flanges. ⅛ in. and under. | Flanges. Over ⅛ in. |
|---|---|---|---|---|---|---|
| | % | % | % | % | % | % |
| Gas ..... | 67½ | 50 | 42½ | 45 | 52½ | 55 |
| Water ..... | 63¾ | 46½ | 37½ | 40 | 47½ | 50 |
| Steam ..... | 60 | 42½ | 32½ | 35 | 42½ | 45 |
| Galv. gas..... | 55 | 37½ | 32½ | 35 | 42½ | 45 |
| Galv. water | 50 | 32½ | 27½ | 30 | 37½ | 40 |
| Galv. steam | 45 | 27½ | 22½ | 25 | 32½ | 35 |

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

| Per yd. in 6 ft. lengths. | Gutters. | Angles and Nozzles. | Stop Ends. |
|---|---|---|---|
| 3 in. ..... | 1/3½ | 11½d. | 3½d. |
| 3½ in. ..... | 1/4½ | 1/1½ | 3½d. |
| 4 in. ..... | 1/6 | 1/3 | 3½d. |
| 4½ in. ..... | 1/7½ | 1/4½ | 4½d. |
| 5 in. ..... | 1/10½ | 1/6½ | 5½d. |

O.G. GUTTERS.

| | | | |
|---|---|---|---|
| 3 in. ..... | 1/8 | 1/4½ | 3½d. |
| 3½ in. ..... | 1/8 | 1/4½ | 3½d. |
| 4 in. ..... | 1/9½ | 1/4½ | 3½d. |
| 4½ in. ..... | 1/11½ | 1/7½ | 4½d. |
| 5 in. ..... | 2/4½ | 1/10½ | 5½d. |

RAIN-WATER PIPES, &c.

| Per yd. in 6 ft. | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| 2 in. plain ..... | 1/10½ | 1/3 | 1/9½ |
| 2½ in. ,, ..... | 2/0½ | 1/4½ | 2/1½ |
| 3 in. ,, ..... | 2/6 | 1/9 | 2/7½ |
| 3½ in. ..... | 2/11½ | 2/0½ | 3/0½ |
| 4 in. ,, ..... | 3/5 | 2/6½ | 3/8½ |

L.C.C. COATED SOIL PIPES—London Prices ex Works.

| | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| | s. d. | s. d. | s. d. |
| 2 in. per yd. in 6 fts. plain | 3 3 | 2 4½ | 2 10 |
| 2½ in. ,, | 3 9 | 2 7½ | 3 7 |
| 3 in. ,, | 4 6 | 2 10 | 4 2½ |
| 3½ in. ,, | 4 11½ | 3 7 | 4 11½ |
| 4 in. ,, | 5 5½ | 4 0½ | 5 9 |

L.C.C. COATED DRAIN PIPES—London Price ex Works

| | Pipe, stock angles. | Bends, stock Branches, angles. |
|---|---|---|
| | s. d. | s. d. |
| 3 in. per yd. in 0ft. lengths | 4 4 | 5 1 8 0½ |
| 4 in. ,, ,, | 4 10 | 5 8 10 0 |
| 5 in. ,, ,, | 6 6 | 10 10 17 1 |
| 6 in. ,, ,, | 6 8 | 13 2 21 9 |

Gasken for jointing, 38/6 per cwt.

| | Per ton in London. £ s. d. | | £ s. d. |
|---|---|---|---|
| IRON— Common bars..... | 13 0 0 | to | 14 10 0 |
| Staffordshire Crown Bars— Good merchant quality | 14 5 0 | to | 15 15 0 |
| Staffordshire Marked Bars..... | 16 5 0 | ... | 17 5 0 |
| Mild Steel Bars ..... | 10 0 0 | ... | 11 0 0 |
| Steel Bars, Ferro-Concrete quality, basis price ..... | 10 0 0 | ... | 11 0 0 |
| Hoop iron, basis price ..... | 12 0 0 | ... | 13 0 0 |
| ,, Galvanised ..... | 27 0 0 | ... | 28 0 0 |
| Soft Steel Sheets, Black— Ordinary sizes, to 20 g.... | 13 5 0 | ... | 14 5 0 |
| ,, ,, ,, 24 g.... | 14 5 0 | ... | 15 5 0 |
| ,, ,, ,, 26 g.... | 16 5 0 | ... | 17 5 0 |
| Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. | 15 10 0 | ... | 16 10 0 |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g..... | 16 10 0 | ... | 17 10 0 |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.... | 18 10 0 | ... | 20 10 0 |
| No. 1 quality £4 per ton extra. | | | |
| Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g. ..... | 18 0 0 | ... | 19 0 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g. | 18 10 0 | ... | 19 10 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 26 g. ..... | 21 10 0 | ... | 22 10 0 |
| Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker ..... | 22 0 0 | ... | 23 0 0 |
| Best Soft Steel Sheets, 22 g. and 24 g. ..... | 24 0 0 | ... | 26 0 0 |
| Best Soft Steel Sheets, 26 g. ..... | 25 10 0 | ... | 26 10 0 |
| Cut Nails, 3 in. to 6 in..... | 18 0 | | |
| (Under 3 in. usual trade extras.) | | | |

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

## LEAD, &c.

(Delivered in London.) £ s. d.
LEAD—Sheet, English, 4 lb. and up ..... 30 0 0
Pipe in coils ..... 30 10 0
Soil pipe ..... 33 10 0
Compo pipe ..... 34 10 0
NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes. 5s. cwt. extra.
Old lead, ex London area, at Mills ..... per ton 20 5 0

## COPPER.

| | | s. d. |
|---|---|---|
| Seamless Copper tubes (basis)..... | per lb. | 1 1½ |
| Strong sheet ..... | ,, | 1 0 |
| Thin..... | ,, | 1 1 |
| Copper nails ..... | ,, | 2 3 |
| Copper wire ..... | ,, | 2 4 |

### PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 174/- 300/- 588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.
½ in. ¾ in. 1 in.
39/6 60/- 116/6 per doz.

CAPS AND SCREWS.
1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.
1¼ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.
½ in. ¾ in. 1 in. 1¼ in. 1½ in.
35/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.
1¼ in. 1½ in. 2 in. 3 in.
8 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.
8 lbs. S. traps ... 35/- 45/- 66/- 126/- ,,

TIN.—English Ingots, 2/6 per lb. SOLDER.—Plumber's 1/1. Tinmen's 1/4, Blowpipe 1/5 per lb.

## PAINTS, &c.

| | | | |
|---|---|---|---|
| Raw Linseed Oil, in pipes ..... | per gallon | 0 | 2 8 |
| ,, ,, ,, in barrels ... | ,, | 0 | 2 10 |
| ,, ,, ,, in drums ... | ,, | 0 | 3 0 |
| Boiled ,, ,, in barrels ... | ,, | 0 | 3 0 |
| ,, ,, ,, in drums ... | ,, | 0 | 3 3 |
| Turpentine in barrels ..... | ,, | 0 | 3 10 |
| ,, in drums (10 gails) | ,, | 0 | 4 0 |
| Genuine Ground English White Lead, per ton | | 52 | 0 0 |

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

## PRICES CURRENT OF MATERIALS (*contd.*)

### PAINTS, &c. (*contd.*)

| | | £ | s. | d. |
|---|---|---|---|---|
| GENUINE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J," Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots | per ton delivered | 70 | 10 | 0 |
| Red Lead, Dry (packages extra) ... | per ton | 39 | 10 | 0 |
| Best Linseed Oil Putty ..... | per cwt. | 0 | 15 | 0 |
| Filicol ..... | ,, | 0 | 15 | 6 |
| Size. XD quality ..... | fkn. | 0 | 3 | 6 |

### GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

| | Per ft. | | Per ft. |
|---|---|---|---|
| 15 oz. fourths ... | 2½d. | 32 oz. fourths ..... | 6½d. |
| 15 ,, thirds ... | 3d. | 32 ,, thirds ..... | 8½d. |
| 21 ,, fourths ... | 3½d. | Obscured Sheet, 15 oz. | 3½d. |
| 21 ,, thirds ... | 4d. | ,, ,, 21 ,, | 4½d. |
| 26 ,, fourths ... | 3½d. | Fluted 15oz.6½d.,21oz. | 9d. |
| 26 ,, thirds ... | 6½d. | En'lled 15 oz. 4½d., 21 oz. | 6d. |

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

| | Per ft. |
|---|---|
| ⅛ Rolled plate ..... | 4½d. |
| 3/16 Rough rolled ..... | 5½d. |
| ¼ Rough rolled ..... | 5½d. |
| Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White | 5½d. |
| Ditto, tinted ..... | 8½d. |
| Rolled Sheet ..... | 4½d. |
| White Rolled Cathedral ..... | 4½d. |
| Tinted do. ..... | 6½d. |

Cast plate is same price as rough rolled.

### VARNISHES, &c.

| | | Per Gallon £ | s. | d. |
|---|---|---|---|---|
| Oak Varnish ..... | Outside | 0 | 14 | 0 |
| Fine ditto ..... | ditto | 0 | 16 | 0 |
| Fine Copal ..... | ditto | 0 | 18 | 0 |
| Pale Copal ..... | ditto | 1 | 0 | 0 |
| Pale Copal Carriage ..... | ditto | 1 | 4 | 0 |
| Best ditto ..... | ditto | 1 | 12 | 0 |
| Floor Varnish ..... | Inside | 0 | 18 | 0 |
| Fine Pale Paper ..... | ditto | 0 | 18 | 0 |
| Fine Copal Cabinet ..... | ditto | 1 | 2 | 6 |
| Fine Copal Flatting ..... | ditto | 1 | 0 | 6 |
| Hard Drying Oak ..... | ditto | 0 | 18 | 0 |
| Fine Hard Drying Oak ..... | ditto | 0 | 19 | 0 |
| Fine Copal Varnish ..... | ditto | 1 | 0 | 0 |
| Pale ditto ..... | ditto | 1 | 2 | 0 |
| Best ditto ..... | ditto | 1 | 12 | 0 |
| Best Japan Gold Size ..... | | 0 | 12 | 6 |
| Best Black Japan ..... | | 0 | 10 | 6 |
| Oak and Mahogany Stain (water) ..... | | 0 | 12 | 0 |
| Brunswick Black ..... | | 0 | 7 | 6 |
| Berlin Black ..... | | 0 | 14 | 0 |
| Knotting (patent) ..... | | 1 | 5 | 0 |
| French and Brush Polish ..... | | 0 | 17 | 0 |
| Liquid Dryers in Terebine ..... | | 0 | 9 | 0 |
| Coulrass Black Enamel ..... | | 0 | 7 | 0 |

# BOARD OF TRADE INQUIRIES

Under the Merchandise Marks Act, 1926, the Standing Committee (General Merchandise) appointed by the Board of Trade will hold inquiries on the following dates as to whether the undermentioned classes and descriptions of imported goods should bear an indication of origin :—

Monday and (if necessary) Tuesday, October 22 and 23, at 11.30 a.m. and 10.30 a.m. respectively.

SPRING BALANCES OF ALL DESCRIPTIONS.

Monday and (if necessary) Tuesday, October 29 and 30, at 11.30 a.m. and 10.30 a.m. respectively.

MONUMENTS AND GRAVE ENCLOSURES OF GRANITE AND PARTS THEREOF.

Monday and Tuesday, November 5 and 6, and (if necessary) 12 and 13, at 11.30 a.m. and 10.30 a.m. respectively.

RUBBER MANUFACTURES.

Of the following descriptions :—in sheets, piping and tubing, matting and tiling, gloves, rubber-proof cloth, etc.

Inquiries will be held later as to whether the following classes and descriptions of imported goods (and others) should bear an indication of origin :—vacuum cleaners, glassware.

The inquiries will be held at the Board of Trade Offices, Great George-street, London, S.W.1. Communications should be addressed to the secretary, Mr. E. W. Reardon, at that address.

# NEW BUILDINGS IN SCOTLAND

**Dundee.**—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer :—Abbotsford-place, etc.—houses for the Dundee Town Council; Arbroath-road—bungalows for Mr. Wm. Black, Mr. W. M. Patrick, architect, 26, Yeaman-shore; Baxter Park-terrace—offices for Scottish Co-operative Wholesale Society, Ltd.; Dundee-road—house for Mr. James Dickson, Messrs. Maclaren, Soutar & Salmond, architects, 15, South Tay-street; Hillbank-road—alterations for Messrs. James Scott & Sons, Ltd., Messrs. Mills & Shepherd, architects, 9, South Tay-street; Old Glamis-road—alterations for the Church of Scotland General Trustees, Mr. Wm. Salmond, architect, 15, South Tay-street.

**Lossiemouth.**—HOUSING.—The Lossiemouth Town Council are to proceed with the erection of two further blocks of four houses of the Turriff type.

**Edinburgh.**—HOUSING.—A warrant has been granted for the Edinburgh Crematorium Ltd. by the Edinburgh Dean of Guild Court to effect alterations at Easter Warriston House, Warriston-road, for the purposes of a crematory. The plans of the proposed alteration provide for the formation of a chapel. The architects are Messrs. Lorimer & Matthew, 17, Great Stuart-street. Other warrants granted were :—Mr. J. Miller—six double bungalows, Willowbrae-road; Edinburgh Corporation — waterless gas holder, Granton Gas Works; Mr. T. S. Henderson—three bungalows, Columba-road, Blackhall; Henry Alexander & Co., Ford Sales and Service Showrooms—single story motor showroom opposite the Caley Picture House, Lothian-road.

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**Gifts to Liverpool Cathedral.**

Mrs. Moss, of East Hill, Liss, Hants, has given £20,000 to the Building Fund of Liverpool Cathedral. A further gift of £10,000, to be devoted principally to the window fund, has been given by Lady Houston in memory of her husband.

# NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

GENDROS BRICK AND TILE CO., LTD. (232,949). Registered August 27. Manufacturers of and dealers in bricks. Gendros, Swansea. Nominal capital, £7,000.

WATES (WICKHAM), LTD. (233,053). Registered August 31. 14, Paternoster-row, E.C.4. Builders and contractors, etc. Nominal capital, £2,000.

RICHMOND ESTATE, LTD. (233,123). Registered September 4. 163, Poulton-road, Fleetwood. Builders and building contractors, etc. Nominal capital, £500.

FLOOR RENOVATIONS, LTD. (233,087). Registered September 3. 182, Oldham-road, Manchester. Planning, renovating, resurfacing and making floors, etc. Nominal capital, £500.

DANIEL T. JACKSON, LTD. (233,017). Registered August 30. 106, Ripple-road, Barking, Essex. Public works contractor. Nominal capital, £10,000.

CLIFF QUARRIES CO. (TINTAGEL), LTD. (233,015). Registered August 30. Quarrier and dealer in slate carried on at or near Tintagel, Cornwall. Nominal capital, £7,000.

FOLSHOM, LTD. (232,992). Registered August 29. 37, Sheen-road, Richmond. Builders and contractors. Nominal capital, £2,500.

SOUTH-WEST HOMES, LTD. (232,533). Registered August 4, Shields House, W. Barnes-lane, New Malden, Surrey. Builders and contractors, etc. Nominal capital, £1,000.

ARNOLD BEDFORD, LTD. (232,976) Registered August 29. Colliery proprietors, coke manufacturers, brickmakers, etc. Nominal capital, £4,000. A. Bedford, 44, High-street, Halton, Leeds.

H. CONSTANTINE & SON, LTD. (232,996). Registered August 29. 19, Barton-avenue, Blackpool. Plumbers, glaziers, painters, decorators, grainers and sanitary engineers, etc. Nominal capital, £250.

# BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

| | Masons. | Bricklayers. | Carpenters, Joiners. | Plasterers. | Slaters. | Plumbers. | Painters. | Labourers—Masons' ‡ Bricklayers'‡ Plasterers'† |
|---|---|---|---|---|---|---|---|---|
| Aberdeen | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Airdrie | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Alexandria | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Arbroath | 1/6½ | 1/6½ | 1/6½ | 1/7½ | 1/6½ | 1/6½ | 1/5½ | 1/1 |
| Ayr | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Bathgate | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/6½ | 1/2 to 1/3 |
| Blairgowrie | 1/7 | 1/7 | 1/7 | 1/7½ | 1/5 | 1/7 | 1/4 | 10d. to 1/- |
| Bo'ness | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Coatbridge | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Dumbarton | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Dumfries | 1/6½ | 1/6½ | 1/6½ | 1/7½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Dundee | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3 †1/2½ |
| Dunfermline | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7½ | ‡1/2½ †1/2½ |
| Edinburgh | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3½ †1/2½ |
| Falkirk | 1/7½ | 1/7½ | 1/7 | 1/8 | 1/7 | 1/7 | 1/6½ | 1/2½ |
| Fort William | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2 |
| Galashiels | 1/6½ | 1/7 | 1/6½ | 1/7 | 1/6½ | 1/6½ | 1/7 | 1/2 |
| Glasgow | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Greenock | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7 | 1/2½ |
| Hamilton | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2 |
| Hawick | 1/7 | 1/7 | 1/7 | 1/7–1/7½ | 1/7 | 1/7 | 1/7 | 1/2½ |
| Helensburgh | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7 | 1/2½ |
| Inverness | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/- to 1/2 |
| Kilmarnock | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Kirkcaldy | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Kirkwall | 1/5 | 1/5 | 1/4 | 1/5 | 1/5 | 1/4 | 1/4 | 1/- |
| Lanark | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Leith | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3½ †1/2½ |
| Motherwell | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Perth | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Stirling | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stirlingshire (Eastern District) | 1/7½ | 1/0 | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Wishaw | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 654.

# CURRENT PRICES FOR BUILDING WORK IN LONDON*

## EXCAVATOR.

| | | s. | d. |
|---|---|---|---|
| Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep | per yard cube | 11 | 0 |
| Add if in clay | „ „ | 1 | 0 |
| Add for every additional depth of 6 ft. | „ „ | 0 | 6 |
| Planking and strutting to trenches | per foot super | 0 | 5 |
| Do. to sides of excavation, including shoring | „ „ | 1 | 0 |

## CONCRETOR.

| | | | |
|---|---|---|---|
| Portland cement concrete in foundation 1 to 6 | per yard cube | 38 | 0 |
| Add if in underpinning in short lengths | „ „ | 7 | 0 |
| Add if in floors 6 in. thick | „ „ | 3 | 3 |
| Add if in beams | „ „ | 3 | 9 |
| Add if aggregate 1 : 2 : 4 | „ „ | 10 | 0 |
| Add for hoisting not exceeding 10 ft. beyond the first 10 ft. | „ „ | 2 | 6 |

## BRICKLAYER.

| | | £ | s. | d. |
|---|---|---|---|---|
| Reduced brickwork in lime mortar and Fletton bricks | per rod | 32 | 0 | 0 |
| Add if in stocks | „ | 7 | 10 | 0 |
| Add if in Staffordshire blues | „ | 22 | 0 | 0 |
| Add if in Portland cement and sand | „ | 1 | 10 | 0 |

### FACINGS.

| | | | | |
|---|---|---|---|---|
| Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks | per ft. super | 0 | 0 | 1¼ |

### POINTING.

| | | | | |
|---|---|---|---|---|
| Neat flat struck or weathered joint | „ „ | 0 | 0 | 3 |

### ARCHES.

| | | | | |
|---|---|---|---|---|
| Extra only to the price of ordinary brickwork :— | | | | |
| Fair external in half brick rings | „ „ | 0 | 0 | 10 |
| Axed in stocks | „ „ | 0 | 1 | 9 |
| Rubbed and gauged jointed in putty camber or segmental | „ „ | 0 | 6 | 0 |

### SUNDRIES.

| | | | | |
|---|---|---|---|---|
| Damp course in double course of slates breaking joint and bedded in Portland cement | „ „ | 0 | 1 | 0 |
| Setting ordinary register grates and stoves | each | 1 | 0 | 0 |
| Setting kitchener, including forming flues, &c., with all necessary fire bricks | „ | 4 | 15 | 0 |

## ASPHALTER.

| | | s. | d. |
|---|---|---|---|
| Half-inch horizontal damp course | per yard super | 4 | 6 |
| Three-quarter-inch vertical damp course | „ „ | 9 | 6 |
| Three-quarter-inch on flats in two thicknesses | „ „ | 6 | 3 |
| Angle fillet | per foot run | 0 | 3 |
| Skirting and fillet 6 in. high | „ „ | 1 | 2 |

## MASON.

| | | | |
|---|---|---|---|
| York stone templates fixed | per foot cube | 13 | 0 |
| York stone sills fixed | „ „ | 22 | 0 |
| Bath stone and all labour fixed | „ „ | 10 | 6 |
| Beer stone and all labour fixed | „ „ | 15 | 0 |
| Portland stone fixed | „ „ | 20 | 0 |

## SLATER.

| | | | |
|---|---|---|---|
| Welsh 16 in. × 8 in. 3 in. lap, including nails | per square | 72 | 9 |
| Do. 20 in. × 10 in. Do. Do. | „ | 80 | 9 |
| Do. 24 in. × 12 in. Do. Do. | „ | 90 | 0 |

## CARPENTER AND JOINER.

| | | | |
|---|---|---|---|
| Fir framed in plates | per foot cube | 5 | 0 |
| Do. joists | „ „ | 5 | 6 |
| Do. roofs, floors and partitions | „ „ | 6 | 0 |
| Do. trusses | „ „ | 8 | 6 |

| | | ¾″ | 1″ | 1¼″ | 2″ |
|---|---|---|---|---|---|
| Deal rough close boarding | per sq. | 35/6 | 40/- | 45/- | 72/- |

| | | | | |
|---|---|---|---|---|
| Flat centering for concrete floor, including struts or hangers | „ | 50 | 0 | |
| Do. to beams | per ft. sup. | 0 | 11 | |
| Centre for arches | „ | 1 | 6 | |
| Gutter boards and bearers | „ | 1 | 0 | |

### FLOORING.

| | | ¾″ | 1″ | 1¼″ | 1½″ |
|---|---|---|---|---|---|
| Deal-edges shot | per sq. | — | 44/6 | 53/- | 60/6 |
| Do. tongued and grooved | „ | — | 49/- | 57/6 | 65/- |
| Do. matchings | „ | 45/- | 51/- | — | — |
| Moulded skirting, including backings and grounds | per ft. sup. | 1/6 | 1/9 | 2/- | 2/6 |

### SASHES AND FRAMES.

| | | s. | d. |
|---|---|---|---|
| One-and-a-half moulded sashes or casements | per foot super | 1 | 10 |
| Two Do. Do. Do. | „ „ | 2 | 1 |
| Add for fitting and fixing | „ „ | 0 | 3 |
| Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size | „ „ | 3 | 9 |

### DOORS.

| | | 1½″ | 1¾″ | 2″ |
|---|---|---|---|---|
| Two-panel square framed | per ft. sup. | 2/1 | 2/4 | 2/6 |
| Four-panel Do. | „ | 2/5 | 2/8 | 2/11 |
| Two-panel moulded both sides | „ | 2/8 | 2/11 | 3/2 |
| Four-panel Do. Do. | „ | 2/11 | 3/2 | 3/5 |

## CARPENTER AND JOINER—continued.

### FRAMES.

| | | s. | d. |
|---|---|---|---|
| Deal wrot moulded and rebated | per foot cube | 14 | 0 |

| | | 1″ | 1¼″ | 1½″ |
|---|---|---|---|---|
| Plain deal jamb linings framed | per ft. sup. | 1/7 | 1/8 | 1/11 |
| Deal shelves and bea ers | „ | 1/4 | 1/6 | 1/9 |
| Add if cross-tongued | „ | 2d. | 2d. | 2d. |

### STAIRCASES.

| | | 1″ | 1¼″ | 1½″ | 2″ | 2½″ |
|---|---|---|---|---|---|---|
| Deal treads and risers in and including rough brackets | | 2/1 | 2/4 | 2/9 | — | — |
| Deal strings wrot on both sides and framed | | 1/8 | 2/- | 2/2 | 2/8 | — |

| | | s. | d. |
|---|---|---|---|
| Housings for steps and risers | each | 0 | 11 |
| Deal balusters, 1 in. × 1¼ in. | per ft. run | 0 | 9 |
| Mahogany handrail : average, 3 in. × 3 in. | „ „ | 6 | 0 |
| Add if ramped | „ „ | 12 | 0 |
| Add if wreathed | „ „ | 24 | 0 |

### FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

| | | | |
|---|---|---|---|
| 6 in. barrel bolts | 8½d. | Rim locks | 2/- |
| Sash fasteners | 11½d. | Mortice locks | 4/6 |
| Casement fasteners | 1/5 | Patent spring hinges and letting into floor and making good | 19/- |
| Casement stays | 1/2 | | |
| Cupboard locks | 1/5 | | |

## FOUNDER AND SMITH.

| | | s. | d. |
|---|---|---|---|
| Rolled steel joists | per cwt. | 16 | 3 |
| Plain compound girders | „ | 19 | 0 |
| Do. stanchions | „ | 21 | 9 |
| In roofwork | „ | 27 | 6 |

## RAIN-WATER GOODS.

| | | 3″ | 4″ | 5″ | 6″ |
|---|---|---|---|---|---|
| Half-round plain rebated joints | ft. run | 1/6 | 1/9 | 2/- | 2/6 |
| Ogee Do. Do. | „ | 1/9 | 2/- | 2/6 | 3/3 |
| Rain-water pipes with ears | „ | 1/9 | 2/7 | — | — |
| Extra for shoes and bends | each | 4/4 | 5/11 | — | — |
| Do. stopped ends | „ | 1/11 | 2/4½ | 3/7 | 4/- |
| Do. nozzles for inlets | „ | 2/2 | 2/7 | 3/10 | 4/3 |

## PLUMBER.

| | | s. | d. |
|---|---|---|---|
| Milled lead and laying in flashings and gutters | per cwt. | 43 | 0 |
| Do. Do. in flats | „ | 42 | 0 |
| Extra labour and solder in coated cesspools | each | 6 | 9 |
| Welf joint | per ft. run | 0 | 6 |
| Soldered seam | „ „ | 1 | 3 |
| Copper nailing | „ „ | 0 | 3 |

| | | ½″ | ¾″ | 1″ | 1½″ | 2″ | 4″ |
|---|---|---|---|---|---|---|---|
| Drawn lead waste | per ft. run | 1/2 | 1/9 | 2/- | 3/4 | 4/- | — |
| Do. service | „ | 1/8 | 2/2 | 2/7 | 3/10 | — | — |
| Do. soil | „ | — | — | — | — | — | 6/9 |
| Bends in lead pipe | each | — | — | — | — | 3/3 | 8/2 |
| Soldered stop ends | „ | 1/2 | 1/8 | 2/1 | 2/10 | 3/6 | — |
| Read lead joints | „ | 11d. | 1/- | 1/3 | 1/11 | 2/4 | 4/10 |
| Wiped soldered joints | „ | 2/10 | 3/6 | 4/- | 4/11 | 6/6 | 9/9 |
| Lead traps and cleaning screws | „ | — | — | — | 14/7 | 19/6 | — |
| Bib cocks and joints | „ | 6/4 | 9/7 | 15/4 | 41/- | — | — |
| Stop cocks and joints | „ | 15/4 | 17/2 | 25/8 | 64/- | — | — |

## PLASTERER.

| | | s. | d. |
|---|---|---|---|
| Render, float and set in lime and hair | per yard sup. | 2 | 6 |
| Do. Do. Sirapite | „ „ | 2 | 9 |
| Do. Do. Keen's | „ „ | 4 | 0 |
| Add saw lathing | „ „ | 1 | 7 |
| Add metal lathing | „ „ | 2 | 6 |
| (Not including hangers or runners, etc., for suspended ceilings.) | | | |
| Portland cement screed | „ „ | 2 | 2 |
| Do. plain face | „ „ | 3 | 3 |
| Mouldings in plaster | per 1 girth | 0 | 1½ |
| One-and-a-half granolithic pavings | per yard sup. | 5 | 6 |

## GLAZIER.

| | | s. | d. |
|---|---|---|---|
| 21-oz. sheet plain | per foot sup. | 0 | 8½ |
| 26-oz. Do. | „ „ | 1 | 0 |
| Obscured sheet | „ | 1 | 1 |
| ⅛-in. rolled plate | „ „ | 0 | 9 |
| ¼-in. rough rolled or cast plate | „ „ | 0 | 10½ |
| ¼-in. wired cast plate | „ „ | 1 | 4 |

## PAINTER.

| | | s. | d. |
|---|---|---|---|
| Preparing and distempering, 2 coats | per yard sup. | 0 | 9 |
| Knotting and priming | „ „ | 0 | 7 |
| Plain painting, 1 coat | „ „ | 0 | 9 |
| Do. 2 coats | „ „ | 1 | 2 |
| Do. 3 coats | „ „ | 1 | 9 |
| Do. 4 coats | „ „ | 2 | 4 |
| Graining | „ „ | 2 | 3 |
| Varnishing twice | „ „ | 1 | 9 |
| Sizing | „ „ | 0 | 3 |
| Flatting | „ „ | 0 | 7 |
| Enamel | „ „ | 1 | 1 |
| Wax polishing | per foot sup. | 0 | 6 |
| French polishing | „ „ | 1 | 2 |
| Preparing for and hanging paper | per piece, 2/- to 4/- | | |

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

# TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

**Aberdeenshire.**—Additions and alterations to the public school, Pitmedden of Udny, for the E.C. Mr. E. L. Williamson, architect, 154, Union-street, Aberdeen:—

*Masons—*
*Marshall & Wallace, Udny.
*Joiners—*
*John Buchan & Son, Monymusk.
*Charles Southerland, Whiterashes, New Macher.
*Plumbers—*
*G. Ritchie, Old Meldrum.
*W. Crichton, New Deer.
*Plasterers—*
*Coutts & Leask, Aberdeen.
*Slater—*
*John Smith, Craigdam, Tarves.
*Painter—*
*Geo. Taylor, Ellow.

**Accrington.**—Improvements to the railway station, for the L.M. & S. Railway:—
*T. Riley, Ltd., Fleetwood.

**Bournemouth.**—37 houses on land near Lower Charminster-road, for the T.C.:—
*H & W. Hawkins .....(per house) £373

**Blackpool.**—Painting and decorations to premises at Adelaide-street, Fleetwood, for the Fylde Water Board. Mr. G. F. Atkinson, engineer, Seftonstreet:—
*J. Preston & Sons, Ltd., Fleetwood.

**Blackpool.**—Bank and shops at the junction of Rossall-road and Victoria-road, Cleveleys, for Corporation. Mr. F. Wood, Borough Engineer:—
*F. Parker & Sons, Lytham St. Annes.

**Bradford.**—Erection of Nos. 11 and 12 Cooling Towers in connection with the extension of the Valley-road Power Station, for the Electricity Committee. City Architect:—
*Davenport Engineering Co., Ltd., Bradford.

**Bradford.**—Steelwork for the new loading bay in engine-room extension at the Valley-road power station, for the Electricity Committee. City Architect:—
*Frederick Fox, Ltd., Bradford.

**Bradford.**—6 combined shops and dwelling-houses on Eccleshill housing estate, for the Health Committee. City Architect:—

| | | | |
|---|---|---|---|
| *Bricklayer and Mason—* | | | |
| *A. Robinson ..... | £3,317 | 5 | 0 |
| *Carpenters and Joiners—* | | | |
| *A. Watson & Sons ..... | 1,200 | 0 | 0 |
| *Plumber and Glazier—* | | | |
| *C. Firth ..... | 731 | 0 | 0 |
| *Plasterers and Concreters—* | | | |
| *F. Mudd & Sons ..... | 550 | 0 | 0 |
| *Roof Tiler—* | | | |
| *J. Kellett ..... | 265 | 13 | 2 |

(All of Bradford.)

**Bradford.**—4 combined shops and dwelling-houses on the Shirley Manor Wyke housing estate, for the Health Committee. City Architect:—

| | |
|---|---|
| *Bricklayers, Masons, Carpenters and Joiners—* | |
| *J. H. Wood & Co., Ltd., Leeds ..... | £3,165 |
| *Plumber and Glazier—* | |
| *C. Firth, Bradford ..... | 498 |
| *Plasterer and Concreter—* | |
| *T. Feather, Bradford ..... | 470 |

**Brentwood.**—Alterations and additions to the Palace Cinema in High-street. Mr. F. E. Jones, F.R.I.B.A., architect:—

| | |
|---|---|
| W. F. Blay, Ltd. ..... | £4,675 |
| F. J. Cohead ..... | 4,580 |
| J. W. Falkner & Sons ..... | 4,560 |
| Geo. Parker & Sons ..... | 4,497 |
| Wm. Shurmur & Sons, Ltd. ..... | 4,455 |
| Pitcher Construction Co., Ltd. ..... | 4,199 |

**Bury.**—Painting of the exterior of the East Ware Council school, for the E.C. Borough Surveyor:—
*Lomax & Riding, Bury.

**Buxton.**—Alterations to the Devonshire Park chapel, for the First Church to Christ Scientist. Mr. Flint, L.R.I.B.A., architect and surveyor, 5, The Quadrant:—
*J. Robinson, Buxton.

**Carlisle.**—New receiving station for Nestle & Anglo-Swiss Condensed Milk Co., Middlewich, Ches.:—
*J. Laing & Co., Ltd., Carlisle.
*Steelwork—*
*J. Parks & Sons, Northwich.
*Roofing—*
*Bell's United Asbestos Co., Ltd., London.
*Floor Surfaces—*
*Steel Mesh Surfaces, Ltd., Birmingham.
*Plumbers—*
*Graham & Crawford, Carlisle.
*Painters and Glaziers—*
*R. M. Hill & Son, Carlisle.

**Chorlton-on-Medlock.** — Improvements to the Devonshire Arms public-house, Higher Temple-street, for Messrs. C. Creese & Co., Ltd., brewers, Hyde. Mr. F. Riley, A.R.I.B.A., architect. Messrs. Bramald & Smith, 4, Cannon-street, Manchester:—
*F Percival, Miles Platting.

**Cromford.**—Branch premises in a central position at Cromford, for the Wirksworth Co-operative Society, Ltd., Dale House, Wirksworth:—
*Isaac Walker, Ltd., Northend, Wirksworth.

**Desford.**—Six cottages at Boxford, for the R.D.C.:—
*Mr. Kingsbury, Boxford ..... £2,187

**Edinburgh.**—Fitting up existing buildings to be used as a store, at Craigleith Hospital, for the P.C. Mr. J. M. Johnston, F.R.I.B.A., architect, 47, Charlotte-street, Leith. Quantities by the architect:—
*Johnstone & Rose, Leith ..... £257

**Emsworth.**—Additions to the hospital, for the Committee of the Victoria Hospital. Messrs. A. E. Cogswell & Sons, architects, Prudential-buildings, Portsmouth:—

| | | | |
|---|---|---|---|
| C. W. Poling, Portsmouth..... | £4,165 | 0 | 0 |
| Corke, Ltd., Portsmouth ..... | 3,499 | 0 | 0 |
| Cortis & Hankins, Drayton ... | 3,441 | 19 | 2 |
| Jordan, Ltd., Portsmouth..... | 3,426 | 0 | 0 |
| L. Hoad, Portsmouth ..... | 3,375 | 0 | 0 |
| Gregory & Sons, Emsworth ..... | 3,372 | 4 | 5 |
| Scadgell & Son, Emsworth ..... | 3,294 | 0 | 0 |
| F. W. Hill, Bognor ..... | 3,255 | 14 | 3 |
| D. H. Cook & Sons, Crawley ... | 3,191 | 0 | 0 |
| S. Salter, Portsmouth ..... | 3,131 | 0 | 0 |
| A. Godwin, Havant ..... | 3,066 | 5 | 0 |
| F. J. Privett, Portsmouth ..... | 2,997 | 0 | 0 |
| Clear & Sons, Purbrook ..... | 2,914 | 9 | 8 |
| Rogers Bros., Havant ..... | 2,790 | 0 | 0 |
| W. R. Smith, Southbourne ..... | 2,774 | 15 | 0 |
| Feben & Sons, Waterlooville ... | 2,711 | 16 | 0 |
| Tobin & Wilson, Southbourne ... | 2,555 | 1 | 0 |

**Halifax.**—External painting of the library and museum at Bankfield, for the C.B. Borough Engineer, Crossley-street:—
*W. Holmes.

**Hill End, St. Albans.**—For the erection of a nurses' home, for the Hill End Mental Hospital Visiting Committee of the Hertfordshire C.C. Mr. H. Carter Pegg, F.R.I.B.A., architect, 35, Parliament-street, S.W.1:—

| | | | |
|---|---|---|---|
| H. E. Winskell, Barnet ..... | £28,256 | 0 | 0 |
| G. P. Whitby, St. Albans ..... | 24,568 | 0 | 0 |
| J. Honour & Son, Ltd., Tring | 23,121 | 0 | 0 |
| Pool & Sons, Hartley Wintney | 22,980 | 0 | 0 |
| H. & J. Matthews, Ltd., Berkhamsted ..... | 22,238 | 8 | 11 |
| Wm. Moss & Sons, Ltd., London | 22,090 | 0 | 0 |
| F. Hitch & Co., Ware ..... | 22,086 | 0 | 0 |
| M. & F. O. Foster & Co., Ltd., Hitchin ..... | 21,941 | 0 | 0 |
| Miskin & Sons, Ltd., St. Albans | 21,885 | 0 | 0 |
| Walden & Co., Ltd., Reading ... | 21,779 | 0 | 0 |
| F. & A. Baynton, London ..... | 21,580 | 0 | 0 |
| W. O. Porter, Ware ..... | 21,442 | 0 | 0 |
| Galbraith Bros., Ltd., London | 21,400 | 0 | 0 |
| J. B. Edwards & Co., London | 20,915 | 0 | 0 |
| H. J. Wright, Ltd., Gt. Missenden ..... | 20,699 | 0 | 0 |
| Pettengell & Clark, Letchworth | 20,498 | 10 | 0 |
| Ekins & Co., Ltd., Hertford ... | 20,479 | 0 | 0 |
| Wilson Lovatt & Sons, Ltd., Wolverhampton ..... | 20,453 | 0 | 0 |
| J. T. Bushell & Sons, St. Albans | 20,424 | 0 | 0 |
| H. Lacey & Sons, Luton ..... | 20,300 | 0 | 0 |
| Winter & Ward, Harpenden ... | 19,900 | 0 | 0 |
| Arthur Carter, Luton ..... | 19,726 | 0 | 0 |
| H. C. Banes, Ltd., Luton ..... | 19,367 | 12 | 5 |

**Hornchurch.**—40 non-parlour type on the south side of Sutton-avenue, for the U.D.C. Mr. F. Alderson, surveyor:—

| | |
|---|---|
| J. H. Thompson & Sons, Grimsby. | |
| V. F. & N. Locke, Romford. | |
| G. & J. W. Fox, Ilford ..... | £22,250 |
| F. Maynard, Romford ..... | 22,200 |
| P. T. Osborne, Upminster ..... | 21,720 |
| J. R. Rooff, Plaistow ..... | 20,650 |
| C. A. Piper, Romford ..... | 19,980 |
| Eaton Bros., Loughton ..... | 19,289 |
| C. J. Smith, Romford ..... | 19,176 |
| G. J. Hawkes & Sons, Chelmsford... | 17,900 |
| F. H. Stewart, Little Waltham ..... | 17,400 |
| A. Saunders, Brentwood ..... | 17,103 |
| E. H. Church & Son, Romford ..... | 17,100 |
| Lawes, Cherry & Co., London ..... | 16,853 |
| F. A. Fordham, Laindon ..... | 16,500 |
| S. J. Davis, Romford ..... | 15,920 |
| Franklin & Co., Erith ..... | 15,800 |
| A. Smith, Romford ..... | 15,697 |
| H. Parker & Co., Ltd., London ..... | 15,340 |
| Sherren, Ltd., Lewes ..... | 15,180 |
| S. G. Moss, Chelmsford ..... | 15,000 |
| *Blackwell & Meyer, Bexley Heath... | 14,979 |
| Friend & Clowes, Laindon ..... | 14,600 |
| J. E. Walker, Leadgate ..... | 14,080 |
| I. Atkinson & Son, Southend ..... | 12,425 |

**Hove.**—Painting the external woodwork and ironwork at the Hove Sanatorium, for the T.C. Borough Surveyor:—
*A. W. Leney, Hove ..... £225

**Kildare.**—Reconstruction of the Castledermot Courthouse, for the Kildare C.C. Mr. John Rooke, County Surveyor, Courthouse, Naas:—
*D. & J. Earbery, Athy ..... £1,036 15 7

**Peterborough.**—Cottage Homes, for the B.G. Mr. S. Dodson, architect:—
‡J. Guttridge & Sons. (Subject to approval of M.H.


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**Leavesden.**—Supply of steel paling, at the Mental Hospital, for the M.A.B.:—

| | | | |
|---|---|---|---|
| T. W. Palmer & Co., Merton | £226 | 13 | 4 |
| Bayliss, Jones & Bayliss, Ltd., London | 217 | 16 | 3 |
| W. Miller & Sons, Ltd., Wolverhampton | 212 | 10 | 0 |
| Hill & Smith, Ltd., Brierley Hill | 200 | 2 | 1 |
| *J. Elwell, Ltd., Birmingham | 164 | 13 | 9 |

**Leeds.**—Covered way from the nurses' home to the infirmary block "D" at St. James' Hospital, Beckett-street, for the B.G. Messrs. G. F. Bowmann & Son, architects, 18, Park-row:—

*Carpenters and joiners' work*—
*J. Tomlinson & Son.

*Plumber, glazier and electrician work*—
*T. M. West.

*Roof tiler work*—
*E. C. Kesteven.

*Painter work*—
*Lazenby Bros.

(All of Leeds.)

**Leeds.**—Reconstruction of the Fisherman's Hut Hotel at Ellerby-lane, for Messrs. Joshua Letley & Sons, Ltd. Messrs. Kitson, Parish & Ledgard, architects, Bank-chambers, Vicar-lane:—

*B. Coates & Sons.

**Leeds.**—Reconstruction of the Golden Lion Hotel, for Messrs. John Smiths, Ltd., Tadcaster Brewery Co.:—

*Lazenby Bros.

**London.**—Commercial-road (Old Kent-road to Hill-street) Paving Works Tenders. Taking up existing sett paving and providing and laying new creosoted deal blocks on reinforced concrete foundations in Commercial-road, from Old Kent-road to Hill-street, for the Camberwell B.C.:—

| | | | |
|---|---|---|---|
| Walter Jones & Sons, Ltd. | £14,771 | 17 | 4 |
| William Griffiths & Co., Ltd. | 13,133 | 8 | 3 |
| Henry Hayes (Manchester), Ltd., Manchester | 12,976 | 3 | 7 |
| The Improved Wood Paving Co., Ltd. | 12,735 | 1 | 8 |
| W. H. Wheeler & Co., Ltd. | 12,494 | 5 | 4 |
| The Acme Flooring & Paving Co. (1904), Ltd. | 12,466 | 12 | 0 |
| G. J. Anderson | 12,119 | 9 | 1 |
| *John Mowlem & Co., Ltd. | 12,056 | 8 | 1 |

(All of London.)

**London.**—121 houses on section "D" at Eltham, for the Woolwich B.C.:—

| | | | |
|---|---|---|---|
| R. Mansell, Croydon | £71,997 | 0 | 0 |
| F. R. Absolem, Ltd., Cambridge | 70,404 | 13 | 3 |
| Rowley Bros., Ltd., Tottenham | 69,870 | 0 | 0 |
| Sir Wm. Prescott & Sons, Ltd., London | 65,770 | 0 | 0 |
| H. Boot & Sons, Ltd., London | 65,661 | 0 | 0 |
| J. Laing & Sons, Ltd., London | 63,713 | 0 | 0 |
| Blackwell & Meyer, Bexleyheath | 61,587 | 0 | 0 |
| *James Byrom, Ltd., Bury | 60,900 | 0 | 0 |
| Franklin & Co., Ltd., Erith | 59,374 | 0 | 0 |
| Borough Engineer | 63,222 | 0 | 0 |

**London.**—Steelwork for provision of garage accommodation, for the Stepney B.C.:—

| | |
|---|---|
| Dorman Long & Co., Ltd. | £1,050 |
| T. & W. Palmer | 1,015 |
| Westwood & Co., Ltd. | 980 |
| A. D. Dawnay & Co., Ltd. | 974 |
| Somerville-Barnard Cons. Co. | 968 |
| Nortons (Tividale), Ltd. | 910 |
| Ashton Construction Co. | 892 |
| *James Couper & Co., Ltd. | 780 |

(All of London.)

**London.**—Installation of electric lighting apparatus, etc., at the Colindale Hospital, for the M.A.B.:—

| | |
|---|---|
| Read & Partners, Ltd. | £1,858 |
| Jacob, White & Co., Ltd. | 1,695 |
| L. G. Tate & Co., Ltd. | 1,590 |
| Alpha Manufacturing & Electrical Co., Ltd. | 1,495 |
| *T. Clarke & Co., Ltd. | 1,355 |

(All of London.)

**London.**—New staff block, etc., at the St. Margaret's Hospital, for the M.A.B.:—

| | | |
|---|---|---|
| A. C. Mackinlay | £6,214 | 4 |
| S. H. Inns, Ltd. | 6,180 | 0 |
| Hammond & Barr, Ltd. | 5,500 | 0 |
| Lister-Mawby (Builders), Ltd. | 5,353 | 0 |
| W. F. Goodchild | 5,005 | 0 |
| J. Darch, Ltd. | 4,969 | 0 |
| E. Proctor & Sons | 4,636 | 6 |
| Vigor & Co. (Poplar), Ltd. | 4,445 | 0 |
| J. Crewdson | 4,250 | 0 |
| C. H. Boyd & Son, Ltd. | 4,243 | 0 |
| F. Hitch & Co., Ware | 4,000 | 0 |
| A. Logan | 3,914 | 0 |

(All of London.)

**London.**—Rearrangement of steward's stores, etc., at the South-Western Hospital, for the M.A.B.:—

| | |
|---|---|
| C. H. Boyd & Son, Ltd. | £1,382 |
| J. Darch, Ltd. | 1,198 |
| A. H. Inns, Ltd. | 1,037 |
| A. Logan | 998 |

(All of London.)

**London.**—Erection and completion of 15 working-class flats in Betterton-street, W.C.2, for the Holborn B.C. Mr. J. E. Parr, Borough Surveyor, Town Hall, High Holborn, W.C.1:—

*A. J. Lambert & Co., Chiswick.

**London.**—Erection of fire escape staircase, at the Western Hospital, for the M.A.B.:—

| | | |
|---|---|---|
| A. W. Smith & Co. | £400 | 0 |
| C. A. & A. W. Haward | 255 | 0 |
| R. C. Searle & Co., Ltd. | 247 | 10 |
| C. H. Boyd & Son, Ltd. | 224 | 0 |
| *S. W. Farmer & Son | 215 | 0 |

(All of London.)

**London.**—Alterations in the accommodation at the North-Western Hospital, for the M.A.B.:—

| | |
|---|---|
| J. W. Buckingham & Sons | £245 |
| Carrington, Thomas & Co., Ltd. | 140 |
| J. Hocking & Co. | 122 |
| *A. H. Inns, Ltd. | 120 |

(All of London.)

**London.**—Extensive repairs to the flues of No. 1 boiler, at the Northern Hospital, for the M.A.B.:—

| | | |
|---|---|---|
| W. Neil & Co. | £175 | 10 |
| H. Windsor & Co., Ltd. | 132 | 0 |
| *Joseph Fox & Sons | 121 | 6 |

(All of London.)

**London.**—Alterations to the laundry at the Southwark Casual Ward, for the M.A.B.:—

| | | |
|---|---|---|
| J. Darch, Ltd. | £245 | 0 |
| W. Bickerton | 199 | 0 |
| C. H. Boyd & Son, Ltd. | 194 | 0 |
| A. H. Inns, Ltd. | 189 | 0 |
| *G. Eaglen & Son | 147 | 10 |

(All of London.)

**London.**—Cleaning, painting and repairs, etc., at the Grove Park Hospital, for the M.A.B.:—

| | | |
|---|---|---|
| Leach & Co., Letchworth | £2,680 | 0 |
| A. Black & Son | 1,767 | 0 |
| Falkus Bros., Ltd. | 1,725 | 0 |
| E. Dyke | 1,698 | 0 |
| T. Graham & Co. | 1,584 | 0 |
| Mond Staffordshire Refining Co. | 1,548 | 0 |
| Stephenson Bros., Newcastle | 1,497 | 0 |
| Vigor & Co. (Poplar), Ltd. | 1,496 | 0 |
| L. Kazak & Co. | 1,465 | 0 |
| J. Hocking & Co. | 1,439 | 0 |
| Harding & Marks | 1,414 | 14 |
| H. & J. Taylor | 1,330 | 0 |
| E. Proctor & Sons | 1,315 | 0 |
| W. Bickerton | 1,297 | 15 |
| Thomas Carrington & Co., Ltd. | 1,275 | 0 |
| A. H. Inns, Ltd. | 1,249 | 0 |
| Campbell, Legh & Co. | 1,135 | 10 |
| *D. C. Bowyer | 1,038 | 4 |
| Lilly & Sons | 1,037 | 0 |

(All of London.)

**London.**—Erection and completion of motor garage in Goldsmith-street, W.C.2, for the Holborn B.C. Mr. J. E. Parr, A.M.Inst.C.E., Borough Surveyor, Town Hall, High Holborn, W.C.1:—

*Mattock & Parsons, London.


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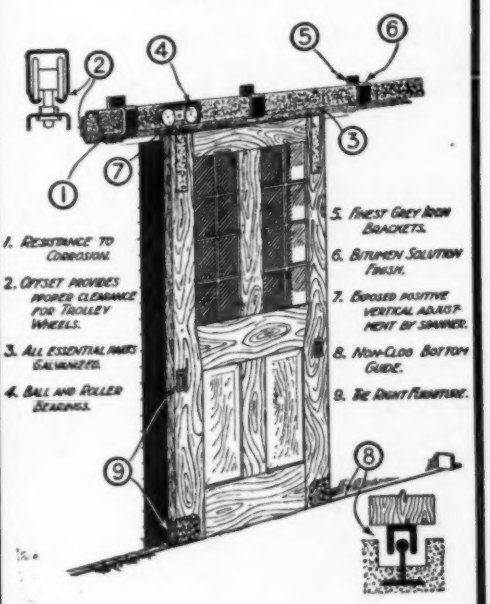
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**London.**—Cleaning and painting, at the Goldie Leigh Homes, for the M.A.B.:—

| | | |
|---|---|---|
| Stephenson Bros., Newcastle | £947 | 0 |
| Edwards Construction Co., Ltd. | 782 | 0 |
| R. Woollaston & Co. | 770 | 0 |
| W. Harris, Ltd. | 713 | 0 |
| F. Firth, Shipley | 706 | 17 |
| J. L. Catterall & Sons, Ltd. | 677 | 0 |
| Campbell, Legh & Co. | 672 | 0 |
| A. Black & Son | 671 | 0 |
| Falkus Bros., Ltd. | 650 | 0 |
| J. Darch, Ltd. | 640 | 0 |
| P. Miller & Son, Dartford | 618 | 0 |
| D. C. Bowyer | 606 | 4 |
| Mond Staffordshire Refining Co., Ltd. | 602 | 0 |
| E. Proctor & Sons | 595 | 0 |
| A. H. Inns, Ltd. | 567 | 0 |
| Thomas Carrington & Co., Ltd. | 565 | 0 |
| J. Hocking & Co. | 555 | 0 |
| *Lilly & Sons | 533 | 0 |

(All of London.)

**Londonderry.**—Alterations, repairs and painting to Magilligan Presbyterian Church, for the Committee. Mr. Crofton G. Dalzell, A.M.I.S.E., architect:—

| | | |
|---|---|---|
| John Thompson, Londonderry | £168 | 10 |
| Hugh Taggart, Ballymoney | 168 | 0 |
| Wm. Crawford, Castlerock | 166 | 10 |
| Hugh Thorpe, Limavady | 151 | 13 |
| *J. & D. Baxter, Coleraine, N.I. | 134 | 14 |

**Malmesbury.**—Reconstruction of the Cowbridge bridge, near Malmesbury, for the Wilts C.C. Mr. H. S. Ganderton, County Surveyor, Trowbridge:—

*E. Ireland, Bath (Subject to the approval of the M. of T.)

**Mexborough.**—Extensions to the Secondary school, for the E.C.:—

*Mollekin & Son, Malfby.

**Norton (W. Yorks).**—Council school, for the West Riding C.C.:—

*J. Featherstone.

**Norwich.**—New education offices on Stracey-road, for the County Council:—

*H. Bullen & Son, Cromer ..... £16,279

**Pinner.**—New roads and sewers at West End Farm estate, for the Home Guarantee Corporation, Ltd. Mr. Brian L. Sutcliffe, A.R.I.B.A., architect, 44, Chancery-lane, London, W.C.2; Mr. Horace W. Langdon, F.S.I., quantity surveyor, 292, High Holborn, W.C.1:—

| | | | |
|---|---|---|---|
| Mortimer Vine | £10,965 | 12 | 4 |
| Franks Harris Bros., Ltd. | 10,772 | 19 | 11 |
| Edward Yewen | 10,656 | 9 | 6 |
| G. Bell & Sons | 10,578 | 0 | 0 |
| Parr-Head & Clements Knowling, Ltd. | 10,637 | 0 | 0 |
| Howard Farrow | 10,259 | 8 | 5 |
| R. H. Powis | 10,078 | 18 | 4 |
| E. H. Wheeler & Co. | 10,074 | 2 | 0 |
| T. W. Pedrette | 9,831 | 9 | 7 |
| G. Wimpey & Co., Ltd. | 9,766 | 15 | 10 |
| J. B. Edwards & Co. | 9,472 | 5 | 0 |
| Charles Carter | 9,153 | 11 | 8 |

**Pontycymmer (Glam.).**—Installation of a low pressure hot water heating apparatus at the Ffaldau Girls' and Infants' schools, for the Glamorgan E.C. Mr. D. Pugh Jones, F.R.I.B.A., County Architect, County Hall, Cardiff:—

*J. C. Hitt & Sons, Bridgend ..... £738 5

**Ramsey.**—Public lavatory at Ramsey, for the U.D.C. Mr. V. J. Bateman, surveyor, 36, Great Whyte:—

| | | |
|---|---|---|
| A. Pettitt & Sons | £429 | 10 |
| A. W. Swearer & Sons | 425 | 0 |
| Avory Bros. | 330 | 0 |
| *G. Shepperson | 313 | 0 |

(All of Ramsey.)

**Scarborough.**—114 houses on the Northstead estate, for the T.C. Mr. H. W. Smith, Borough Engineer:—

*R. Barron & Co., Ltd., Bishop Auckland.

**Shardlow.**—For additional non-parlour-type houses, for the R.D.C., as follows:—Spondon, 112; Sandiacre, 24; Chellaston, 6; Draycott, 20. Mr. J. S. Wooddisse, surveyor, 4, Full-street, Derby:—

*Spondon*—
*Harris & Hunt, Marehay.

*Sandiacre*—
*Wm. Walkerdine, Ltd., Derby (14).
*G. F. Perks & Sons, Long Eaton (10).

*Chellaston*—
*R. Clayborn, Chellaston.

*Draycott*—
*Geo. Smith, Sawley.

**Shorne.**—Villa at Shorne. Mr. E. J. Hammond, L.R.I.B.A., architect, 21, Balmoral-road, Gillingham. Quantities by Mr. E. J. Hammond, 21, Balmoral-road, Gillingham:—

| | | | |
|---|---|---|---|
| Wallis & Sons, Ltd., Gravesend | £1,388 | 0 | 0 |
| W. H. Goodfellow, Rochester | 1,371 | 2 | 10 |
| L. Smith & Son, Maidstone | 1,310 | 0 | 0 |
| Barden & Head, Maidstone | 1,295 | 12 | 0 |
| J. F. Durrant & Son, Ltd., Rochester | 1,281 | 0 | 0 |
| C. E. Skinner & Son, Ltd., Chatham | 1,250 | 0 | 0 |
| A. G. Webb & Sons, Rochester | 1,200 | 0 | 0 |
| G. Gates & Sons, Rochester | 1,165 | 0 | 0 |
| M. West, Strood | 1,079 | 0 | 0 |
| Southern Counties Building Co., Chatham | 1,069 | 10 | 10 |
| W. Edmonds & Son, Rochester | 1,050 | 0 | 0 |
| *E. C. Legge, Rochester | 843 | 9 | 10 |

**Thorne (Yorks).**—For extensions to the Grammar school, for the West Riding C.C.:—

*Builders—*
*T. Jenkins & Sons (Doncaster), Ltd.
*Joiners—*
*Dunhill Bros., Leeds.
*Slaters—*
*H. Payne, Doncaster.
*Plumbers—*
*H. Jowett, Ltd., Bradford.

**Thropston.**—Laying and jointing 6,700 yards of 5-inch, 4-inch and 3-inch diameter cast-iron water main, with valves and fittings, and construction of covered service reservoir, well and pumping station, etc., for the R.D.C. Messrs. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester:—

| | |
|---|---|
| *Stanton Ironworks Co., Nottingham | £1,492 19 2 |
| *Valves and fittings—* | |
| *Ham, Baker & Co., Birmingham | 260 3 10 |

**Urmston.**—Warehouse for Messrs. Lewis's, Ltd., of Market-street, Manchester. Messrs. J. W. Beaumont & Sons, FF.R.I.B.A., 24, Brazennose-street, Manchester:—

*J. Gerrard & Sons, Ltd., Manchester.

**Wakefield.**—Warehouse and packing store in Peterson-road. Mr. F. Simpson, F.R.I.B.A., architect, Southgate-chambers:—

*H. Hainsworth.
*Joiners—*
*R. Broadhead & Son.
*Plumber—*
*H. Gillett.
*Slater—*
*J. Ives.
*Plasterer—*
*T. E. Senior.
*Painters—*
*Broadbent & Sons.
*Ironfounder—*
*S. Rines.
(All of Wakefield.)

**Wakefield.**—Primitive Methodist school on the Lupset estate. Messrs. Dinsley & Moss, architects, 17, Union-street, Chorley:—

*Crook & Sons, Ltd., Wakefield ..... £2,128

**Warrington.**—Internal painting of the police buildings, for the C.B.:—

*Hesketh & Son

**West Bromwich.**—2 blocks of flats on the Tantany estate, for the Town Council:—

*A. Powell.

**Westhampnett.**—Main drainage of Felpham, for the R.D.C. Messrs. Howard Humphreys & Sons, consulting engineers, 28, Victoria-street, Westminster, S.W.1:—

*A. Streeter & Co., Ltd., Godalming.

**Wigan.**—New St. Stephen's Church at Whelley, for the Vicar and Churchwardens. Messrs. Austin & Paley, architects, 34, Castle Hill, Lancaster—

*Webster & Winstanley.
*Carpenter and Joiner—*
*J. Walkden & Sons, Ltd.
*Plumber, Glazier and Painter—*
*G. Roocroft.
(All of Wigan.)

**Woodkirk (Yorks).**—Extensions to the Boar's Head Inn, for Messrs. Samuel Smith's Tadcaster Brewers. Mr. W. Broadbent, architect, Leeds:—

*W. Bromley.

**York.**—Installation of a new heating system at the Technical Institute, for the E.C.:—

*Central Heating Co., Ltd., Leeds... £1,128


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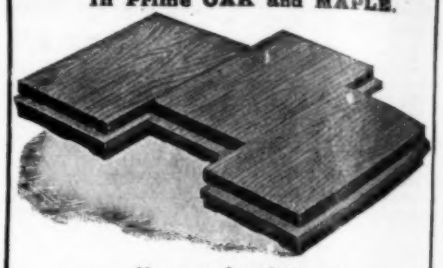
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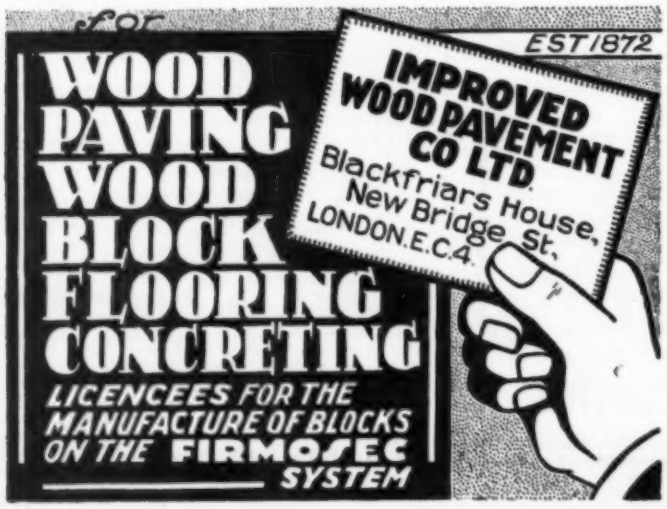


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